6200





Instruction Manual

IMPORTANT SAFETY INSTRUCTIONS

Your Elna 6200 sewing machine is designed and constructed for HOUSEHOLD use only. Read all instructions before using this machine.

DANGER – To reduce the risk of electric shock:

- 1. Your sewing machine should never be left unattended when plugged in. Always unplug the machine from the electrical outlet immediately after using and before cleaning.
- 2. Always unplug before replacing light bulb. Replace bulb with same type rated 12 Volts, 5 watts.
- 3. Do not reach for the machine if it has fallen into water. Unplug immediately.
- 4. Do not place or store machine where it can fall or be pulled into a tub or sink. Do not place it in or drop it into water or other liquid.

WARNING – To reduce the risk of burns, fire, electrical shock or injury:

- 1. Do not allow machine to be used as a toy. Supervision is necessary when this machine is used by or near children.
- 2. Use this sewing machine only for its intended use as described in this manual. Only use attachments recommended by the manufacturer as described in this manual.
- 3. Never operate this machine if it has a damaged cord or plug, is not working properly, has been dropped or damaged or dropped into water. Return the machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
- 4. This machine is equipped with a special connection cord which, if damaged, must be replaced by an identical cord. This can be obtained from your dealer.
- 5. Never operate the sewing machine with any air opening blocked. Keep ventilation openings of the sewing machine and foot control free from the accumulation of lint, dust and fibers.
- 6. Never drop or insert any object into any opening.
- 7. Do not use outdoors.
- 8. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
- 9. To disconnect, turn machine off and remove plug from outlet.
- 10. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- 11. Keep fingers away from all moving parts, especially the needle.
- 12. Always use the proper needle plate. The wrong plate can cause the needle to break.
- 13. Do not use bent needles.
- 14. Do not pull or push fabric while stitching. This may deflect the needle causing it to break.
- 15. Switch the sewing machine off when making any adjustment in the needle area, such as threading needle, changing needle, threading bobbin, changing presser foot, etc.
- 16. Always unplug the sewing machine from the electrical outlet when removing covers, lubricating or making any other servicing adjustments mentioned in the instruction manual.

SAVE THESE INSTRUCTIONS IMPORTANT

Be sure to keep machine away from static electricity, heat sources, humidity and direct sunlight.

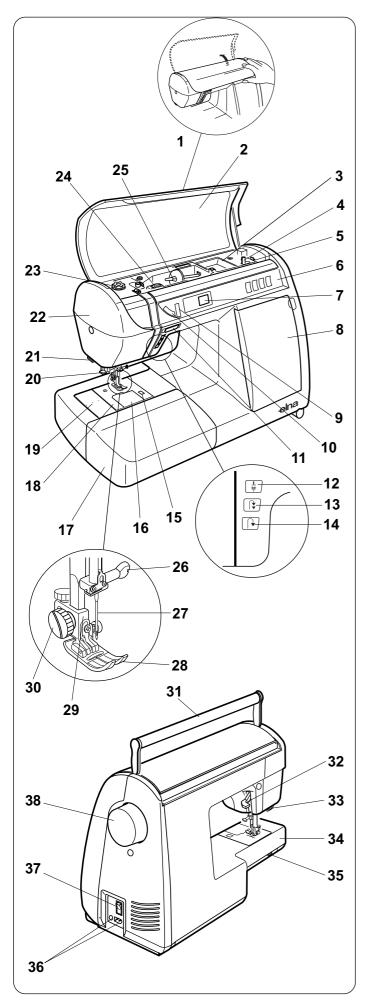
USA only

Your machine comes equipped with a polarized plug (one prong wider than the other). A polarized plug reduces the risk of electrical shock. This plug is intended to fit into a polarized outlet. If the plug does not fit fully into the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way.

Use only foot control model 21371 for sewing machine model 6200 (UL, CSA).

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Shell Tuck	specifications and information as needed.
	specifications and information as needed.

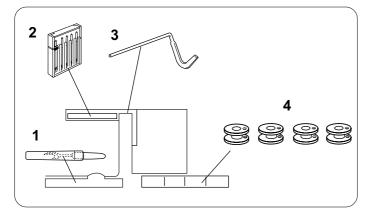


SECTION I

Machine Parts and Functions

Part Names

- 1. Top cover (lift up and back)
- 2. Stitch chart
- 3. Top storage compartment
- 4. Bobbin winder spindle
- 5. Bobbin winder stop
- 6. Selection keys
- 7. LED readout
- 8. Side storage compartment
- 9. Stitch length key
- 10. Stitch width key
- 11. Speed control lever
- 12. Up/down needle key
- 13. Auto-lock key
- 14. Reverse key
- 15. Bobbin cover plate release button
- 16. Bobbin cover plate
- 17. Extension table (storage box)
- 18. Needle plate
- 19. Circular sewing pivot points
- 20. Needle threader
- 21. Thread cutter
- 22. Face plate
- 23. Foot pressure dial
- 24. Needle thread tension dial
- 25. Spool pin
- 26. Needle clamp screw
- 27. Needle
- 28. Presser foot
- 29. Shank
- 30. Thumbscrew
- 31. Carrying handle
- 32. Presser foot lever
- 33. Buttonhole lever
- 34. Free arm
- 35. Feed dog lever
- 36. Machine sockets
- 37. Power switch
- 38. Flywheel (always turn towards you)

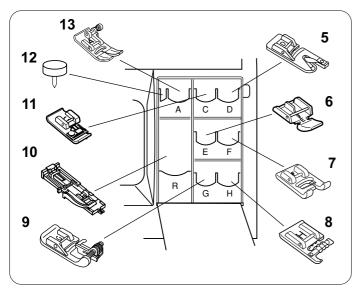


Standard Accessories

Top Cover

(Lift up and back)

- 1. Seam ripper
- 2. Set of needles
- 3. Quilt guide
- 4. Bobbins (4 + 1 in machine = 5 total)

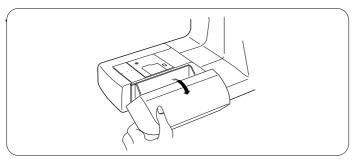


Side Cover

(Pull down Side Cover to open)

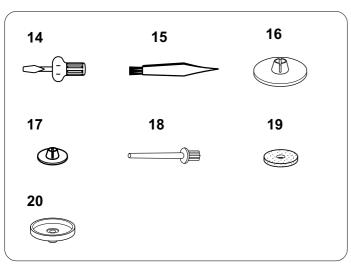
- 5. D: Hemmer foot
- 6. E: Zipper foot
- 7. F: Satin stitch foot
- 8. H: Multi-cord foot
- 9. G: Blind hem foot
- 10. R: Automatic buttonhole foot
- 11. C: Overlock foot
- 12. Circular sewing pivot pin
- 13. A: Standard metal foot (attached to machine)

Storage compartments can be tilted forward for easy access.

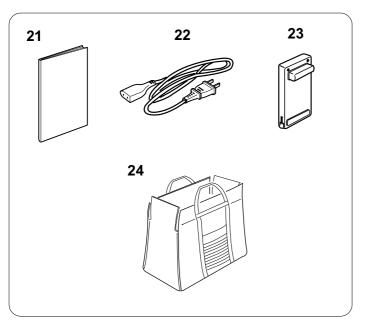


Extension Table (Storage Box)

Accessories are stored inside the extension table. Pull lid towards you to open the storage box.

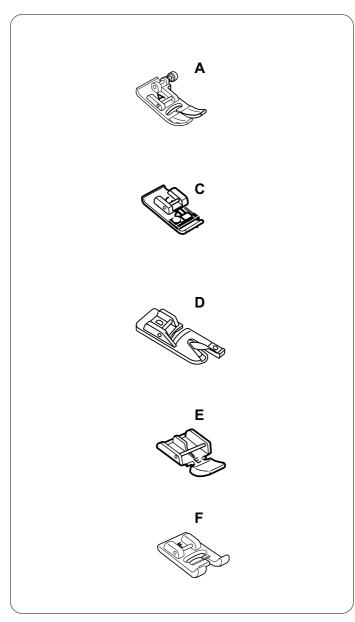


- 14. Large screwdriver
- 15. Lint brush
- 16. Large spool holder
- 17. Small spool holder
- 18. Additional spool pin
- 19. Spool pin felt
- 20. Spool stand



Machine Box

- 21. Instruction book
- 22. Power supply cord
- 23. Foot control
- 24. Carrying bag



Presser Foot and Accessory Definitions

A: Standard Metal Foot

This foot comes attached to your machine. It is mainly used for straight stitches and zigzag stitches longer than 1.0. The button locks the foot in a horizontal position helping to sew over multiple layered seams.

C: Overlock Foot

Prevent fabric edges from raveling by finishing the edge with a zigzag stitch. The wires/brush on the foot help the stitch lie flatter and reduce puckering. Use with medium weight fabrics.

D: Hemmer Foot

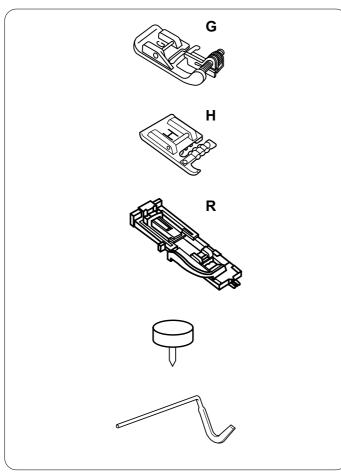
Insert the fabric into the spiral on this foot. The spiral rolls the fabric, creating a rolled hem. An easy, professional way to sew hems.

E: Zipper Foot

Use when sewing zippers into place. The grooves on the underside ensure the foot glides over the zipper coil. Attach either to the left or right of the needle to sew each side of the zipper.

F: Satin Stitch Foot

The cutout on the underside of the foot is designed to accommodate dense stitch formation. Ideal when sewing satin and decorative stitches.





The guide on the foot helps ensure that the needle catches only one or two fibers of the hem, resulting in an invisible hemline.

H: Multi-Cord Foot

Design your own braids or trims. Place one to three cords in the foot and sew over cord(s) for a simple couching method. Or sew over one cord with a zigzag to gather heavier weight fabrics.

R: Automatic Buttonhole Foot

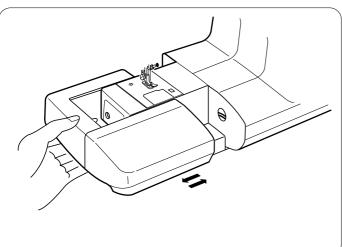
Place button in foot to determine the buttonhole size. The machine will automatically sew the corresponding buttonhole.

Circular Sewing Pivot Pin

The free arm has holes that are 1 cm apart from each other. Use this pivot pin to secure the fabric and sew perfect curves or circles or large scallops.

Quilt Guide

The quilt guide is helpful when sewing parallel, evenly spaced rows of stitching.



Extension Table and Free Arm

Extension Table

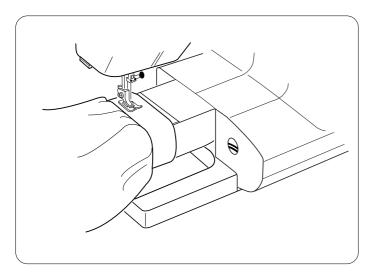
The extension table provides more sewing space to make sewing easier. The extension table can be easily removed for free arm sewing.

To Remove:

Pull the end of the extension table away from the machine, as shown.

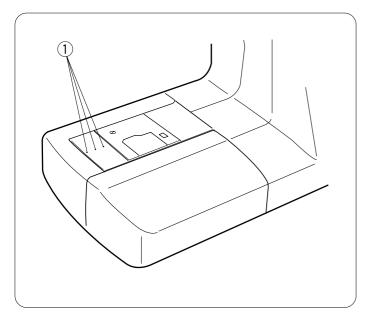
To Attach:

Push the table back into place to reattach the extension table.



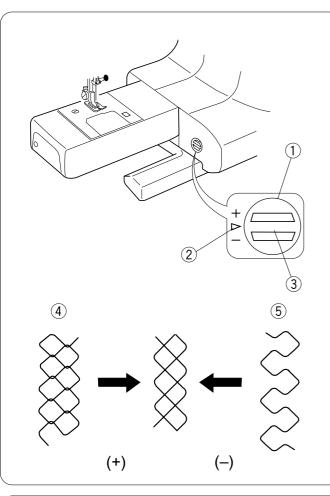
Free Arm

Free arm sewing is good for circle areas like sleeves, waistbands and pant legs. If socks, knee or elbow areas need mending, the free arm will be best to use.



Circular Sewing Pivot Points

The free arm has holes ① that are 1 cm apart from each other. Use the holes to sew circles and scallops with the circular sewing pivot pin. See pages 43-44.



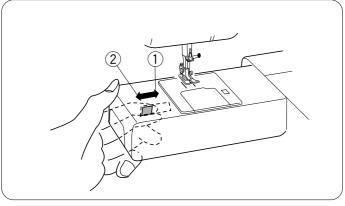
Using the Fine Adjustment Screw

Choice of fabrics and threads may affect the stitch formation. The fine adjustment screw can be used to either lengthen or shorten the stitch.

- Fine adjustment screw
- ② Standard mark
- 3 Setting mark

To fine tune, use a screwdriver to move the setting mark.

- If stitches are too short ④, correct by turning the screw in the direction of "+".
- If the stitches are too long ⑤, correct by turning the screw in the direction of "–".

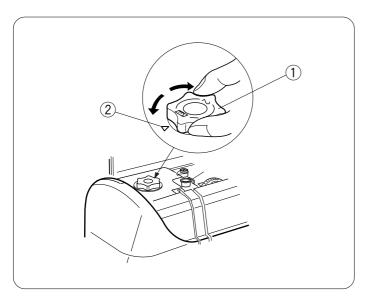


How To Drop the Feed Dog

The feed dog can be dropped out of position for special sewing techniques: free motion embroidery, stippling, button sewing, etc.

The feed dog must always be up for regular sewing.

Locate the feed dog lever on the back of the free arm. Slide the lever either to the right (down) ① or to the left (up) ②. To bring up the feed dog, hand turn the flywheel after sliding lever to the left.

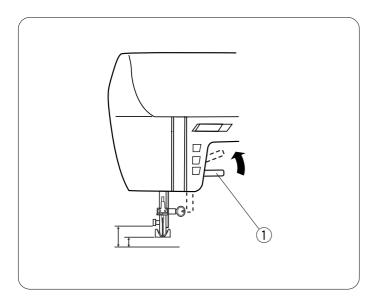


Foot Pressure Dial

Align the foot pressure dial 1 with the setting mark 2 at "3" for regular sewing.

Reduce the pressure to "2" for appliqué, cutwork, drawn work, basting and embroidery.

Velours and knits with a lot of stretch may require a "1" setting.

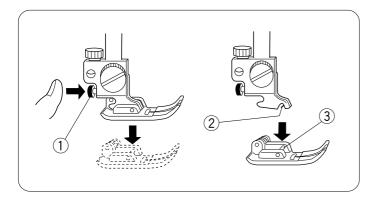


Presser Foot Lever and Additional Presser Foot Clearance

Before sewing can occur, the presser foot must be lowered to close the tension discs.

Raise and lower the foot with this lever 1.

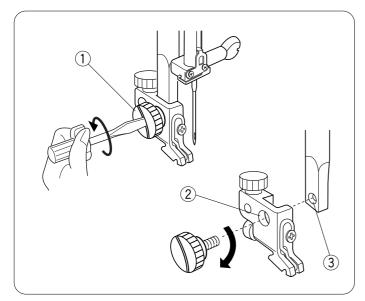
You can raise the presser foot about 6.5 mm (1/4") higher than the normal up position for easy removal of the presser foot or to place heavy fabrics under the presser foot. Pull the presser foot lever up beyond the normal up position.



Attaching and Removing Presser Feet

Press the "Up/Down Needle" key until the needle is in the raised position.

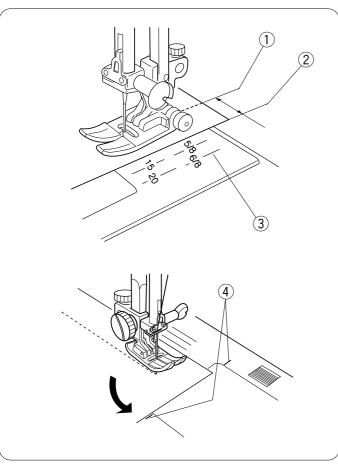
Turn OFF the power switch. Raise the presser foot and press the red button ① on back of the shank. The presser foot will drop off. Place the selected presser foot so the pin ③ on the foot lies just under the groove ② of the shank. Lower the presser bar and attach the foot.



Attaching and Removing Shank

Turn OFF the power switch. Raise the presser bar. Turn the thumbscrew ① counterclockwise with the screwdriver to remove the shank.

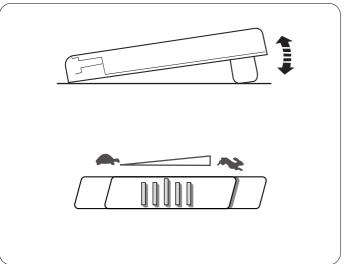
To attach, match the hole in the shank ② with the hole in the presser bar ③. Put thumbscrew in hole and turn clockwise to tighten.



Seam Allowance Lines

The lines on the needle plate, machine bed and bobbin cover plate help you measure seam width. The number indicates the distance between the center needle position (3.5) and the seam allowance line.

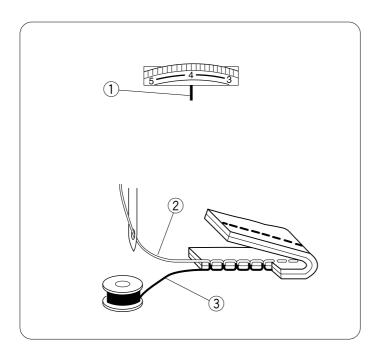
- Center needle position
- 2 Edge of fabric
- 3 Guidelines
- 4 90° pivot angle guideline for 5/8"



Controlling Sewing Speed

Sewing speed can be varied with the foot control. The harder you press on the foot control, the faster the machine runs.

The maximum sewing speed can be varied by sliding the speed control lever. For a faster speed, slide it to the right; for a slower speed, slide it to the left.



Adjusting the Needle Thread Tension

Choosing the Correct Tension — Straight Stitch

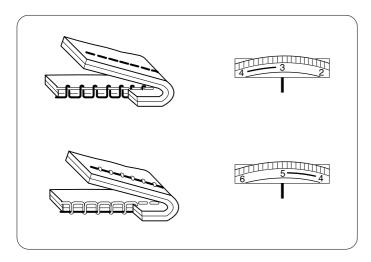
The ideal straight stitch will have threads locked between the two layers of fabric, as shown left (magnified to show detail). Needle thread tension can range from 3-5 and is normally set on 4. Align the 4 on the dial with the setting mark $\widehat{\ 1}$.

If you look at the needle thread ② (top thread) and bobbin thread ③ (bottom thread), you will notice that there are no gaps. Each stitch is smooth and even.

Occasionally the needle thread tension needs to be adjusted to a manual setting. Examples:

- · stiff or heavy fabric
- · sewing more than two layers of fabric
- type of stitch
- thread

When adjusting needle thread tension, the higher numbers tighten, the lower numbers loosen.



Tension is too tight

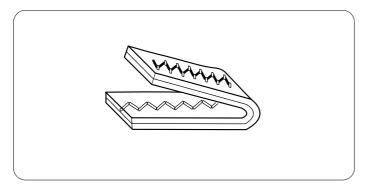
The bobbin thread shows through on the topside of the fabric and it will feel bumpy.

Turn the dial to a lower number to loosen the needle thread tension.

Tension is too loose

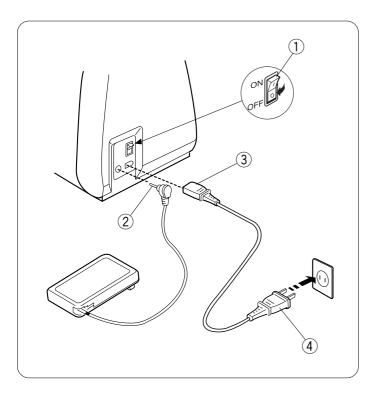
The needle thread shows through on the underside of the fabric and it will feel bumpy.

Turn the dial to a higher number to tighten the needle thread tension.



Adjusting Tension for Zigzag and Satin Stitches

The upper thread tension should be slightly looser when sewing a zigzag or a satin stitch. The upper thread should appear slightly on the underside of the fabric.



SECTION II Getting Ready to Sew

Connecting Machine To Power Supply

Before connecting the power cord, make sure the voltage and frequency shown on the machine are identical to your electrical power.

To connect machine to power supply, turn off the power switch 1. Insert the foot control plug 2 and machine plug 3 into the machine and the power supply plug 4 into the wall socket.

Your machine may come equipped with a polarized plug (one prong wider than the other). A polarized plug reduces the risk of electrical shock. This plug is intended to fit into a polarized outlet. If the plug does not fit fully into the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way.

IMPORTANT: When using your sewing machine the first few times, place waste fabric under the presser foot and run the machine without thread for a few minutes. Wipe away excess oil.

NOTE: After turning off the machine, wait 5 seconds before turning it on again.

For Your Safety

Do not use extension cords or plug adapters.

Do not touch plug with wet hands.

Always turn off the power/light switch first and then unplug from the electrical outlet. Examples:

- when leaving the machine unattended
- · when cleaning the machine

Always turn off the power/light switch:

- when attaching or removing parts such as needle, presser foot, needle plate
- when threading needle or bobbin

Do not place anything on the foot control.

Do not place heavy items on cords. Do not subject cords to heat. Do not use damaged cords. Have the cord repaired immediately.

While the machine is in operation, always keep your eye on the sewing area and do not touch any moving parts such as the thread take-up lever, flywheel or needle.

Weight	Fabric	Needle Type	Needle Size
Very	Chiffon, Fine Lace,	Universal	9 (65)
Light	Organdy	Ball Point	9 (65)
Light	Batiste, Lawn, Crepe de Chine, Challis, Handkerchief Linen,	Stretch	11 (75)
	Crepe, Taffeta, Satin	Universal	11 (75) 12 (80)
	Single Knits, Jersey,	Stretch	11 (75)
	Swimwear, Tricot	Ball Point	11 (75)
	Leather, Suede	Leather	11(75)
	Flannel, Velour, Velvet, Velveteen, Corduroy, Linen, Gabardine, Wool, Terry, Burlap	Universal	14 (90)
	Double Knits, Stretch Velour, Stretch Terry, Sweater Knits	Ball Point	14 (90)
	Leather, Vinyl, Suede	Leather	14 (90)
Heavy	Denim, Sailcloth, Ticking	Denim	16 (100)
	Coating, Polar Fleece, Drapery, and Upholstery Fabrics	Universal	16 (100)
	Leather, Suede	Leather	16 (100)
Very Heavy	Canvas, Duck, Upholstery Fabrics	Universal	18 (110)
	Topstitching for Special Finish	Topstitching	11 (75) 14 (90)

Selecting the Correct Needle and Thread

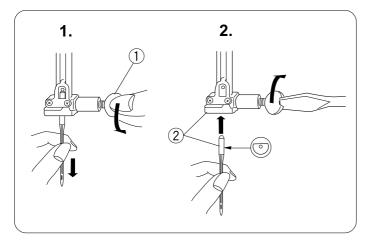
There are many kinds of fabrics, threads and needles. It is important to use the correct ones together.

Always purchase good quality thread. It should be strong, smooth and even in thickness. Use the same thread for needle and bobbin. Always test thread and needle size on a scrap piece of fabric.

In general, fine threads (the larger the number, the finer the thread) and needles (the smaller the number, the finer the needle) are used for sewing lightweight fabrics and heavier threads and larger needles are used for sewing heavyweight fabrics. There are many specialty needles available from your sewing machine dealer.

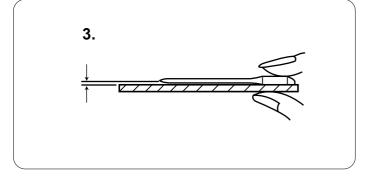
Check your needles frequently for rough or blunt tips. Snags and runs in knits, fine silks and silk-like fabrics are permanent and are often caused by damaged needles.

NOTE: A universal needle size 14/90 comes inserted in your machine.



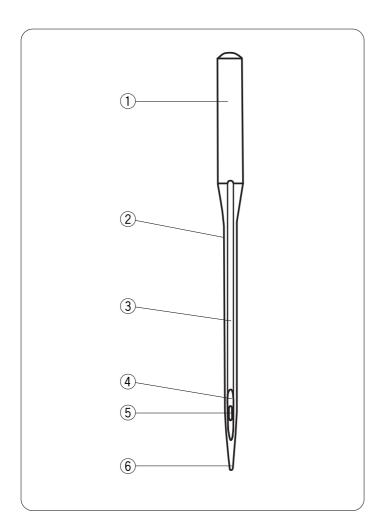
Changing Needles

- Turn ON the power switch. Press the "Up/Down Needle" key to raise the needle. Lower the presser foot. Turn OFF the power switch. Turn the needle clamp screw 1 counterclockwise to loosen. Remove the needle from the clamp.
- 2. Insert the new needle into needle clamp with the flat side to the back, pushing it up as far as it will go ②. Tighten the clamp screw firmly.



3. To determine if the needle is defective, place the flat side of the needle on something flat (a needle plate, piece of glass, etc.). The gap between the needle and the flat surface should be consistent.

Never use a bent or blunt needle, as it may cause skipped stitches or thread breakage. Defective needles can ruin the fabric. Always purchase good quality needles. Change needles often.



Needle Definitions

The illustration identifies the main parts of a sewing machine needle.

- ① Body
- ② Shaft
- 3 Long groove (round side of needle)
- 4 Short groove (flat side of needle)
- ⑤ Eye
- 6 Point

Universal – an all-purpose needle that handles most woven and knit fabrics.

Ball point – the point spreads the fibers, preventing tears and is especially suited for loose knits and interlock knits. Not recommended for embroidery.

Stretch – specially designed to prevent skipped stitches in synthetic suedes and elasticized knits (swimwear).

Denim – the sharp point effectively pierces densely woven fabrics such as denim and canvas.

Topstitching – the extra sharp point penetrates layers of fabrics; extra large eye and large groove accommodate heavyweight topstitching thread.

Metallic – the large grooved shaft helps prevent delicate metallic threads from shredding. Another plus, a larger than average eye makes for easier threading.

Self-Threading – the needle eye has a slit opening on the side to allow the thread to be easily inserted.

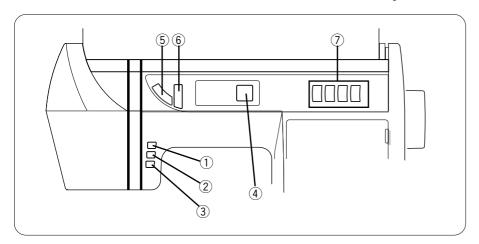
Leather – the cutting point creates small holes in leather and suede. Holes remain after stitching is removed.

Quilt – the tapered point easily penetrates through multiple layers and crossed seams.

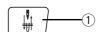
Wing/Hemstitch – wide flat edges (wings) extend outwards near the eye; they separate fibers and create holes for beautiful heirloom stitches.

Twin/Double – 2 needles are joined on a crossbar and share a single shaft. Sews two parallel rows of stitching. Available in universal and ballpoint.

Keys and LED Readout



Turn ON the power switch. (Test lights run in LED readout.)





1 Up/Down Needle Key



Press this key while sewing 01 (straight stitch), 02 (zigzag stitch) or 03 (3-step zigzag stitch) and the machine will sew a few stitches in place and stop automatically.

If the needle is up when you press this key, the needle will go down to its lowest position. The needle

If the needle is down when you press this key, the needle will go up to its highest position. The needle

will continue to stop in the down position.

will continue to stop in the up position.

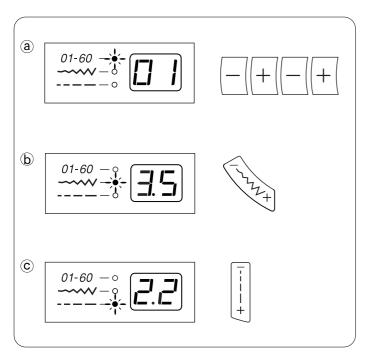
* Press this key while sewing utility or decorative stitches and the machine will complete the stitch, lockstitch and stop.



3 Reverse Key

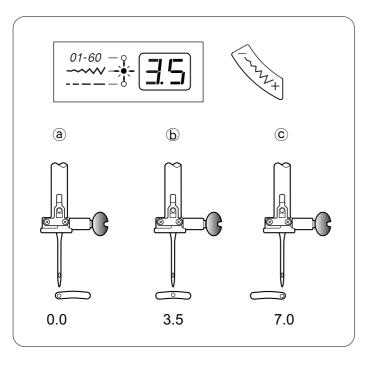
If you are sewing 01 (straight stitch), 02 (zigzag stitch) or 03 (3-step zigzag stitch), press and hold this key. The machine will sew in reverse until you release the key.

* If you are sewing any other stitches, utility or decorative, the machine will immediately stop and sew a lockstitch when you press this key.



4 Indicator Lights and LED Readout

- When this light is lit, the readout displays the selected stitch.
- (b) When this light is lit, the readout displays the selected stitch width/needle position.
- © When this light is lit, the readout displays the selected stitch length.



5 Stitch Width and Needle Position Key

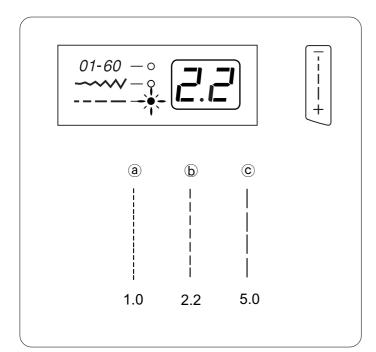
Press this key to display pre-programmed stitch width or needle position.

To decrease stitch width or move needle position to the left, press "-" side of key.

To increase stitch width or move needle position to the right, press "+" side of key.

Stitches 01, 07 and 23 allow you to move from center needle position (3.5) to left (0.0) or right (7.0). There are 15 needle positions.

- a Left position
- **b** Center position
- © Right position



6 Stitch Length Key

Press this key to display pre-programmed stitch length.

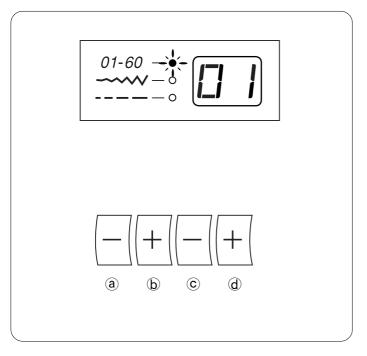
Depending on the stitch selected, stitch length can be set between 0.0 and 5.0.

To decrease length, press "-" side of key.

To increase stitch length, press "+" side of key.

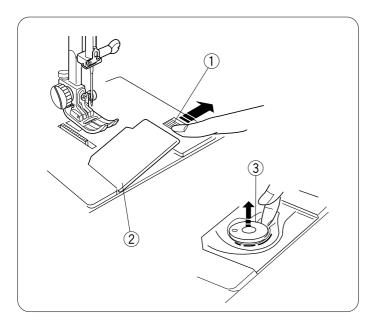
- a 1.0 Stitch length
- **b** 2.2 Stitch length
- © 5.0 Stitch length

NOTE: Fine fabrics should have a stitch length between 1.5 and 2.4, medium fabrics between 2.0 and 3.0 and heavier fabrics between 3.0 and 4.0.



Stitch Selection Keys

- (a) Press this "–" key to change digit in the LED readout 10's column between 0 and 5. Example: If the readout is 01 and this key is pressed, the readout will change to 51.
- Press this "+" key to change digit in the LED readout 10's column between 0 and 5.
 Example: If the readout is 01 and this key is pressed, the readout will change to 11.
- © Press this "-" key to change digit in the LED readout 1's column between 0 and 9. Example: If the readout is 01 and this key is pressed, the readout will change to 60.
- d Press this "+" key to change digit in the LED readout 1's column between 0 and 9. Example: If the readout is 01 and this key is pressed, the readout will change to 02.

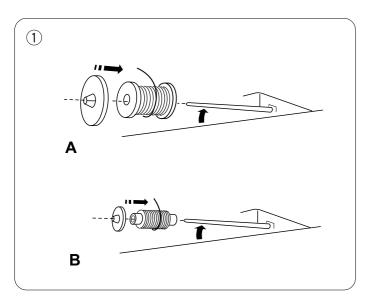


Winding a Bobbin

To remove bobbin, slide bobbin cover plate release button 1 to the right and lift away the bobbin cover plate 2.

Lift out the bobbin ③.

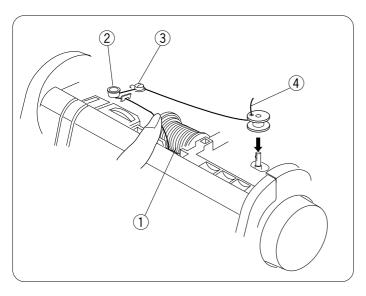
Turn ON the power switch.



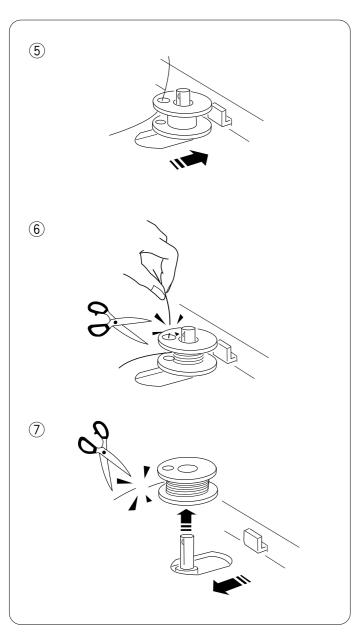
 Lift up the spool pin. Place the spool of thread on the spool pin with the thread coming off the spool as shown. Attach the spool holder and press it firmly against the spool of thread.

NOTE: Spool holder needs to be changed according to the type of thread spool.

- A. Large spool
- B. Small spool



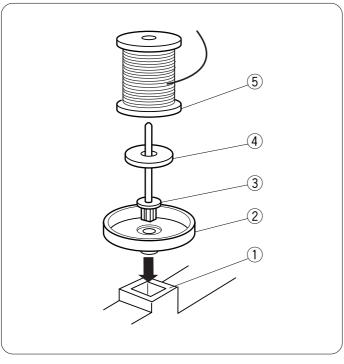
- ② Pull the thread towards the thread guides, under the hook and wrap it around the guide as shown.
- ③ Pull the thread back around the bobbin winder thread guide.
- 4 Pass the thread through the hole in the bobbin from inside to the outside. Place the bobbin on the bobbin winder spindle.



⑤ Push bobbin winder spindle to the right. The computer display screen will show a bobbin winding "] [".

⑥ Holding the free end of the thread, press the foot control. Stop machine after the bobbin has made a few turns. Cut the thread tail close to the hole in the bobbin. Start machine again to continue winding bobbin. When the bobbin is fully wound, stop the machine.

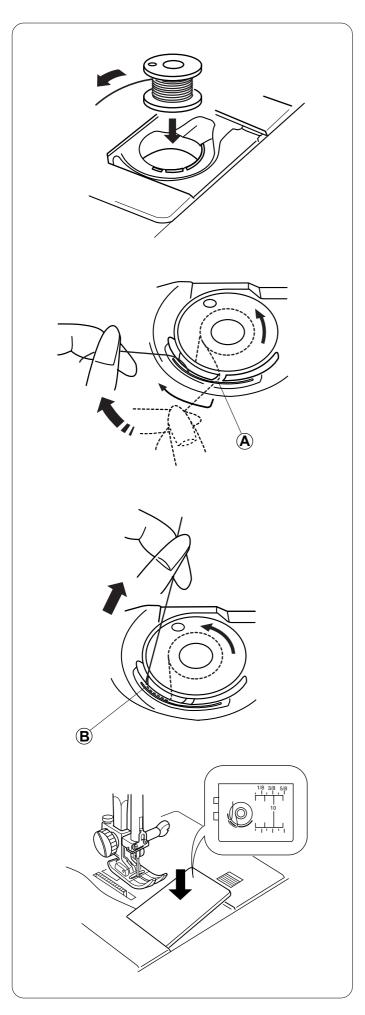
Move the spindle to the left to return the bobbin winder to its original position. Cut the thread as shown.



Additional Spool Pin

The additional spool pin can be used to wind an extra bobbin without unthreading the machine.

PROCEDURE: Insert the spool stand ② and the additional spool pin ③ in the hole ① (located to the right of the built-in spool pin). Place the felt ④ and spool ⑤ on the pin with the thread coming off the spool as shown.



Inserting the Bobbin

Place the bobbin in the bobbin case with the thread running <u>counterclockwise</u>.

Guide the thread into notch $\ensuremath{\triangle}$ on the front side of the bobbin case.

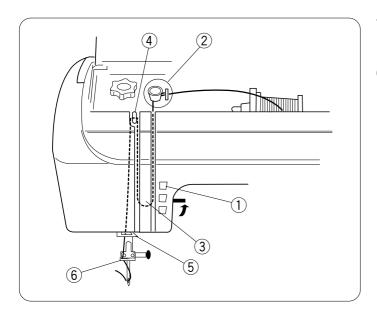
Hold the bobbin with your right hand and pull the thread to the left, through the tension spring blades.

Continue pulling the thread lightly until the thread slips into notch $\widehat{\mathbb{B}}$.

Pull out about 15 cm (6") of thread.

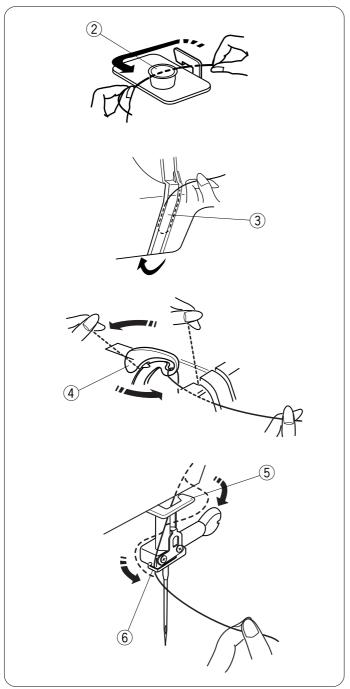
Replace the bobbin cover plate.

Refer to the chart shown on the bobbin cover plate to check the threading.



Threading the Machine

Raise the presser foot. Press the "Up/Down Needle" key ① until the needle is in an up position.



Pull the thread under the hook and around upper thread guide $\widehat{\mathbb{Q}}$.

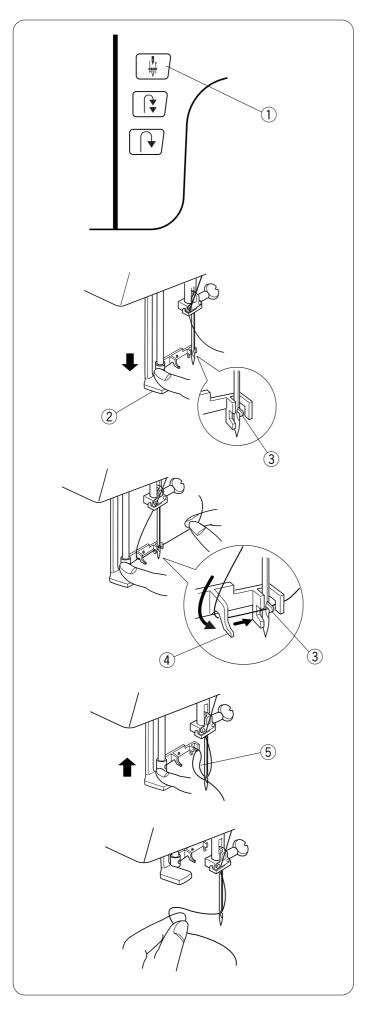
Guide the thread down right channel and around the checkspring holder ③.

Pull the thread up left channel to the take-up lever. Firmly pull the thread from right to left, over the take-up lever and down into the take-up lever eye ④.

Proceed down left channel and through the lower thread guide $\ensuremath{\mathfrak{G}}$.

Slide the thread to the left behind the needle bar thread guide $\ensuremath{\mathfrak{G}}$.

Thread the needle from front to back manually or use the built-in needle threader.



Built-in Needle Threader

Press the "Up/Down Needle" key ① until the needle is in an up position. Turn OFF the power switch. Lower the presser foot.

Lower the needle threader lever ② as far as it will go. Hook ③ is automatically inserted into the needle eye.

Bring the thread around guide 4 and under hook 3.

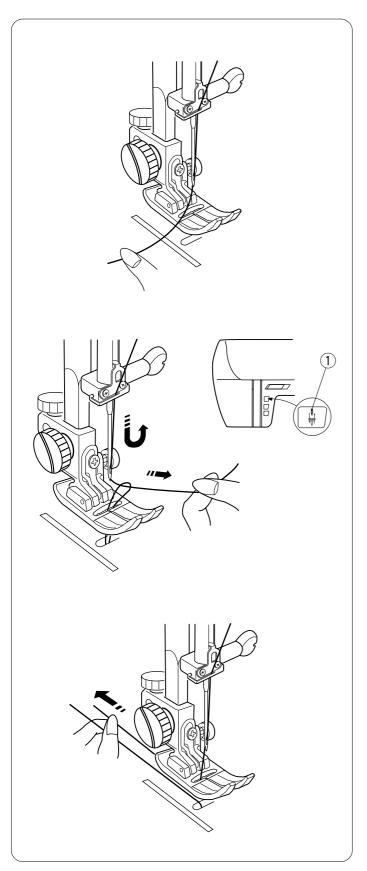
Slowly release the lever while holding the thread end and let the needle threader return to its original position. A loop of thread (5) is pulled through the needle eye.

Pull the thread loop off the guide to the back and manually bring the thread through the needle eye.

 The needle threader can be used with #11 to #16 size needles. Thread weight may vary from 30 to 100

NOTE: Needle threader cannot be used with a twin needle or wing needle.

If the needle threader does not catch a thread loop, check the needle and positioning.



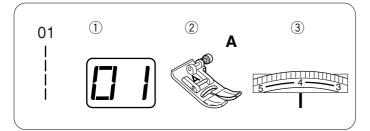
Drawing Up the Bobbin Thread

Turn ON the power switch. Raise the presser foot and hold the needle thread lightly with your left hand.

Press the "Up/Down Needle" key $\ \ \, \textcircled{1}$ twice to pick up the bobbin thread.

Draw up the needle thread together with a loop of bobbin thread.

Slide 10 cm (4") of both threads to the back under the presser foot.



SECTION III

Basic Sewing

Example of How to Read the Machine Set-Up Information

Select Stitch

1 Press stitch selection keys to select stitch 01. See page 16. LED readout shows 01.

Recommended Presser Foot

② Use presser foot shown (A: Metal foot) for the best sewing results. See pages 5-6 for presser foot definitions.

Set Needle Thread Tension

3 Set needle thread tension to 4. See page 10.

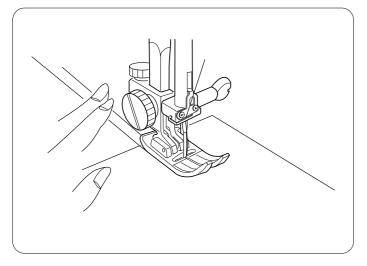
Stitch Width/Needle Position and Stitch Length
Each stitch has a preprogrammed width/needle position
and length. Some techniques require other settings.
These settings will be indicated where necessary in this
instruction manual.

Straight Stitch

When the machine is turned on, it is automatically set to sew a straight stitch in the center needle position.

The straight stitch is used to sew a seam in woven fabrics. The straight stitch can also be used for gathering, basting, sewing in a zipper, pintucks, rolled hems and twin needle hems.

NOTE: Test sew a swatch of fabric and check thread tension. Adjust tension dial if necessary. See page 10.



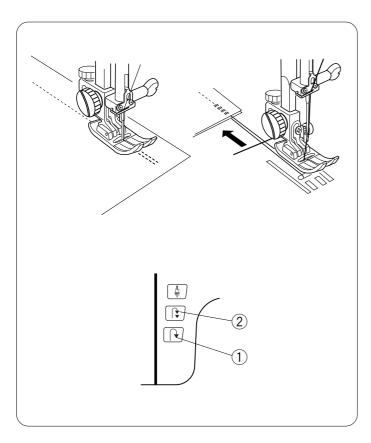
Starting To Sew

Raise the presser foot and position the fabric next to a seam allowance line on the needle plate.

Pull the threads under the foot towards the back and lower the presser foot.

Press the foot control. Gently guide the fabric along the seam allowance line letting the fabric feed naturally.

Remove foot from foot control to stop sewing.

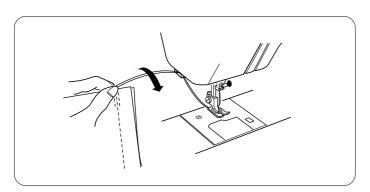


Finishing Off a Seam

To fasten the threads at the beginning or end of a seam, press and hold the "Reverse" key ①.

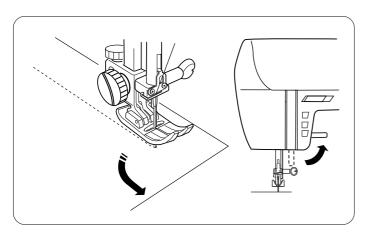
OR

To lockstitch threads at the end of a seam, press the "Auto-Lock" key ② after reaching end of seam.



Cutting the Threads

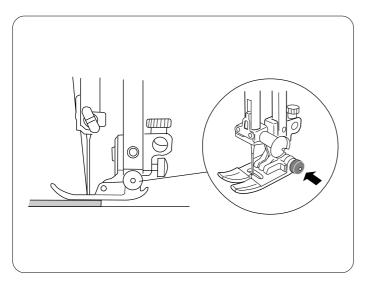
Raise the presser foot. Remove the fabric; pull the threads to the back and cut threads using the thread cutter. (The threads are cut the proper length to start the next seam.)



Changing Sewing Direction

Stop the machine and press the "Up/Down Needle" key to bring the needle down into the fabric. Raise the presser foot.

Pivot the fabric around the needle to change sewing direction. Lower the presser foot. Press the "Up/Down Needle" key to bring the needle up. Sew in new direction.



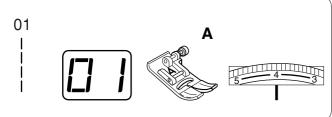
Sewing Over Seams and On Heavy Fabrics

The black button on presser foot "A" locks the foot in a horizontal position when pushed in before lowering the presser foot. This ensures even feeding at the beginning of seams and helps when sewing many layers of fabric such as welt seams used to hem jeans.

When the point of an increased thickness is reached, lower the needle and raise the presser foot. Press in the black button. Lower the foot and continue sewing.

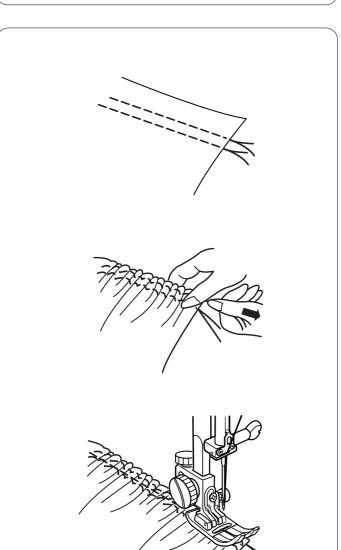
This button releases automatically after a few stitches have been sewn.

NOTE: Increase stitch length between 3.0 and 4.0 for heavier fabrics.



Gathering

Gathering/shirring evenly distributes fullness in an area with very tiny pleats. Gathering is one row or two parallel rows. Shirring is three or more parallel rows. Light to medium weight fabrics provide the best results.



Decrease thread tension dial to between 1 and 3. Increase stitch length to 5.0.

Sew two rows of parallel stitches. Sew first row next to raw edge using foot edge as guide. Sew second row next to first row using foot edge as guide. Leave long thread tails at beginning and end of each row.

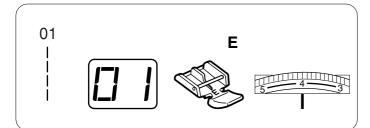
Pull the bobbin threads simultaneously from each end of the fabric until the desired amount is gathered. Knot the threads at each end and distribute the gathers evenly.

Reset thread tension dial to 4 and decrease stitch length to 2.4.

Sew between two rows of stitching to secure gathering.

OR

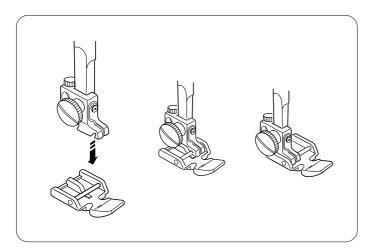
Lay gather fabric over flat fabric and sew the two fabrics together directly on the second row of gathering stitches.



Zipper Insertion

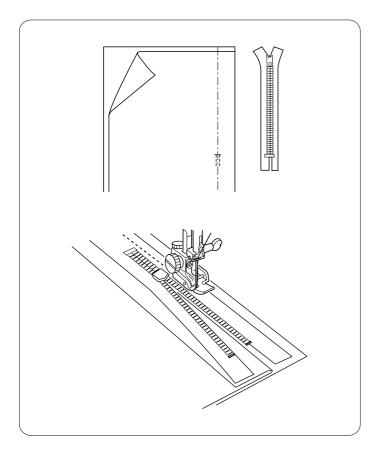
Lapped Application

Lapped zippers are usually inserted into a side seam of skirts or pants, for example.



Attach the pin on zipper foot E to the groove on the shank.

- To sew the left side of the zipper, attach the zipper foot on the right-hand side.
- To sew the right side of the zipper, attach the zipper foot on the left-hand side.



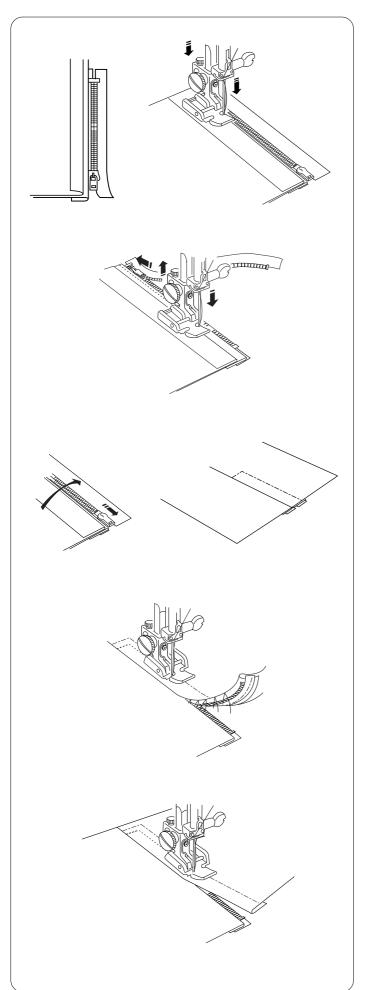
Fabric Preparation

Add 1 cm (3/8") to the zipper size. Use this measurement and mark the opening for the zipper.

Place right sides of fabric together and sew the seam located below zipper placement. (Make sure to reverse sew the stitches directly below the zipper placement.)

Increase stitch length to 5.0 and baste the zipper opening closed. Press the seam and basting seam open.

Open zipper and place it face down on the seam allowance. Teeth are on the seam line and zipper top is 1 cm (3/8") from fabric top edge. Attach foot with left side pin. Baste zipper in place, sewing from bottom to top.



Close zipper. Turn zipper face up (right seam allowance forms a small fold at basting line) and smooth zipper teeth away from seam. Attach foot with right side pin. Reset straight stitch length to 2.4. Starting at the bottom, sew through the folded seam allowance and zipper tape.

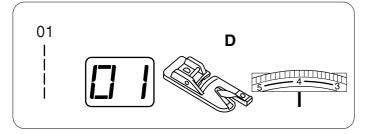
Stop just before the zipper foot reaches the slider on the zipper tape. Lower the needle slightly into the fabric. Raise the zipper foot and open the zipper. Lower the foot and stitch the remainder of the seam.

Close the zipper and spread the fabric flat with the right side facing up. Baste through the opened seam allowance and zipper tape.

Move the zipper foot to the left side pin. Guide the edge of foot along the zipper teeth and stitch through the garment and zipper tape. Stop about 5 cm (2") from the top of the zipper. Slightly lower the needle into the fabric. Raise the foot, remove the basting stitches from seam line and open the zipper.

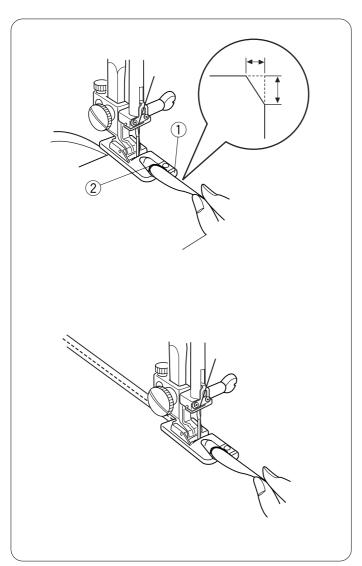
Lower the foot and stitch the remainder of the seam, making sure the fold is even.

Remove remaining basting stitches.



Rolled Hem

An easy, professional way to sew hems. The spiral on the hemmer foot guides the fabric edge to create a rolled hem. Recommended for fine, sheer fabrics used in bridal wear.



Trim about 6.5 mm (1/4") from corners to reduce bulk.

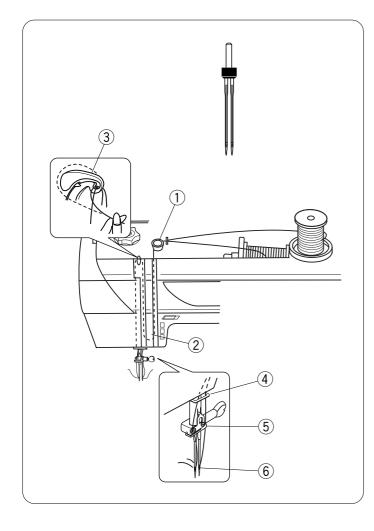
Make a double 3 mm (1/8") fold approximately 8 cm (3") in length.

Align fabric hem edge with the inside of right extension of foot ①. Use this placement on foot as guide. Lower presser foot. Sew 3 or 4 stitches while holding needle and bobbin threads. Stop sewing.

Lower needle into fabric and raise presser foot. Insert folded portion of fabric into spiral of foot ②.

Lower presser foot and sew; lift up edge of fabric to keep it feeding smoothly.

NOTE: Use zigzag with stitch width 1.0 - 2.0 for variation.





As the name implies, the twin needle results in two identical parallel rows of stitches – utility or decorative.

CAUTION: Twin needles are available in many different sizes and widths. Before sewing, always turn the flywheel to make sure the needles do not hit the foot. If you use any other stitch besides the straight stitch, you will need to limit the stitch width to 3.0 mm or less.

Turn OFF the power switch and insert a twin needle.

Insert the spool stand and additional spool pin. Place the spool pin felt and second spool on additional spool pin. See page 18.

Threading the Machine

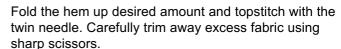
- \bigcirc Thread 1 through 3 in the same manner as single thread. See page 20.
- 4 Draw the threads down and slide them through the right side of the lower thread guide.
- Slide one of the threads through the needle bar thread guide on the left and the other one on the right.
- (6) Thread the needles from front to back.

NOTE: The needle threader cannot be used with a twin needle.

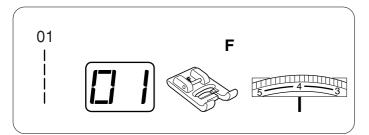
Turn ON the power switch.

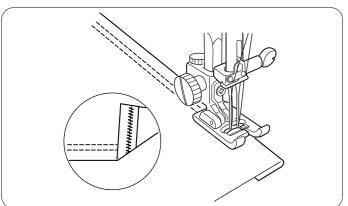
Twin Needle Hem

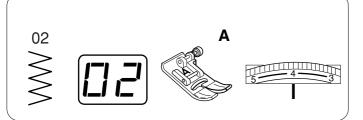
A twin needle hem is quick and easy. This is an excellent hemming method for knit fabrics because the bobbin thread zigzags, allowing the hem to stretch with the fabric. Be sure to use a stretch twin needle for knit fabrics.



After completing twin needle sewing, turn OFF the power switch. Remove twin needle. Set up machine for single needle sewing.

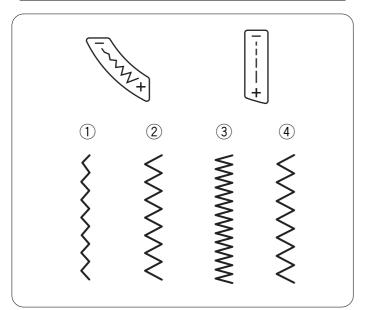






Zigzag Stitch

The zigzag stitch is a very versatile stitch. Simply change its width and length. Use the zigzag to finish raw seam edges, sew narrow hems, sew satin stitch appliqués and create beautiful monograms.

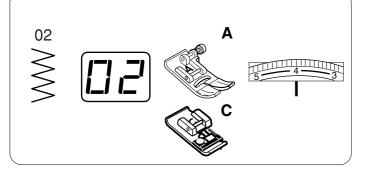


Adjusting Stitch Width and Length

Press the "-" or "+" side of the keys to change the stitch width and length.

Narrower width
 Wider width
 Shorter stitch
 Longer stitch
 (lower number)
 (lower number)
 (higher number)

NOTE: Settings can be altered during sewing



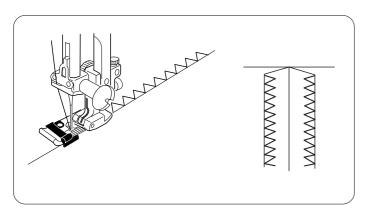
Overcasting

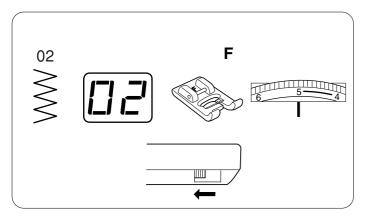
Simple zigzag stitching is used for finishing raw seam edges (overcasting) on most woven fabrics to prevent fabric from unraveling. This is the fastest way to finish an edge.

Decrease stitch length to 1.5.

 Do not set the stitch width lower than 5.0 when using overlock foot C because the needle could hit wires on the foot.

Place the fabric edge against the black guide on the foot. Sew.



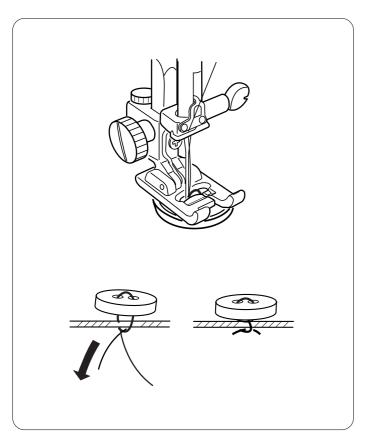


How To Sew On a Button

Hand sewing buttons to a garment is very timeconsuming. Sew them on in one quick, easy step.

Drop the feed dog. See page 7.

 Set the stitch width according to the position of the holes in the button.



Mark button placement on fabric. Use washable glue or transparent tape to temporarily secure the button. Place the button and fabric under the presser foot. Match the holes in the button to the horizontal slot on the presser foot.

Turn the flywheel by hand until the needle is down inside the left hole of the button. Lower the presser foot.

Turn the flywheel by hand to position the needle above the right hole of the button. Press the "Stitch Width" key to adjust the needle over the right hole.

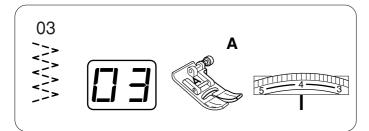
Stitch several times.

After you finish sewing, cut the thread leaving 10-15 cm (4"-6") of thread at the button.

Pull the thread to the reverse side of the fabric and tie the threads.

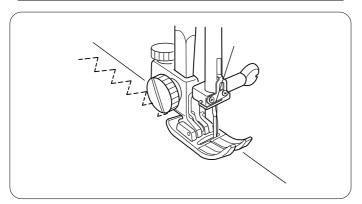
Raise the feed dog after sewing on buttons.

NOTE: The optional Sewing on Button foot grips the button better and also allows you to easily create a thread shank.

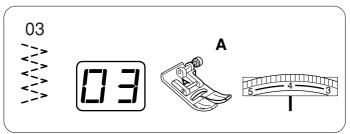


3-Step Zigzag

The 3-step zigzag (sometimes called a multiple zigzag) is used to finish raw seam edges on synthetics and other fabrics that tend to pucker. This stitch gives a flatter edge finish than the regular zigzag and is excellent for darning and mending tears in fabric.



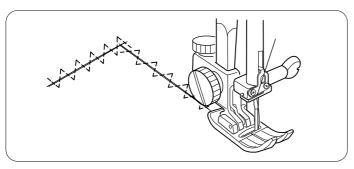
Place the fabric under the presser foot so the needle swings off the fabric to the right or trim away any excess fabric.



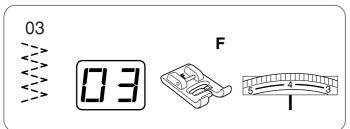
Mending a Tear

Pull torn edges together and fuse a piece of interfacing slightly larger than the tear to the wrong side of the garment.

Decrease stitch length to 0.2 - 0.5.



Begin sewing above the tear. Stitch down the middle, pulling edges together. Stop sewing just beyond end of tear. Depending on the tear, you might need to stitch area 2 or 3 times.



Apply 7 mm (1/4") Elastic

Apply elastic in one step without creating a casing. Evenly stretch the elastic as it is sewn to the fabric.

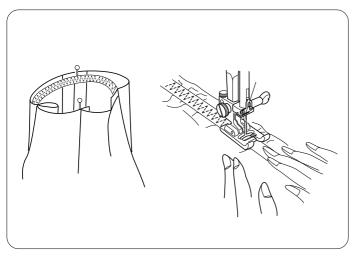
Increase stitch length to 2.5 or higher.

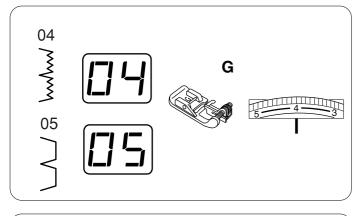
Mark elastic and fabric into equal parts.

Match marks on elastic to fabric.

Place middle of elastic under center of presser foot and stitch into place, making sure elastic is evenly stretched.

NOTE: Apply elastic with Elastic Gatherer (optional accessory). The elastic gatherer evenly stretches the elastic as it is sewn to the fabrics. Available in 3 sizes – 8 mm, 10 mm or 13 mm (1/4", 3/8" or 1/2").



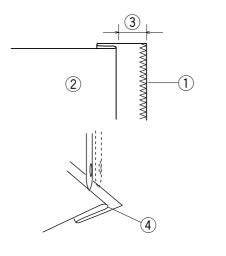


Blind Hem Stitches

The stretch blind hem (04) is a great method for finishing a hemline or sleeve.

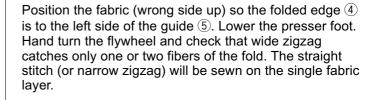
Use the woven blind hem (05) on non-stretch fabrics. Finish the raw hem edge with a zigzag or 3-step zigzag ① before sewing the blind hem.

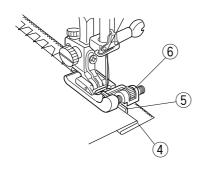
Select 04 or 05.



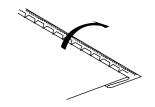
Fold up the hem allowance and press. Fold under the hem toward right side of garment. Leave a 6.5-10 mm (1/4 $^{\prime\prime}$ to 3/8 $^{\prime\prime}$) extension 3 at the right.

② Wrong side of fabric.





If the guide needs adjustment: raise needle out of fabric, lift presser foot, turn the adjustment nut ⑥ and move the guide to the right or left. Reposition fabric against guide, check needle swing by turning flywheel, lower presser foot and sew hemline.



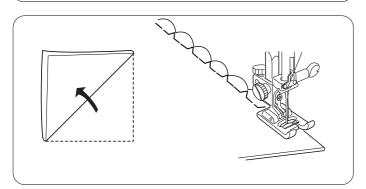
Unfold and open fabric with right side facing up.



Stitches should be almost invisible.

NOTE: If the needle catches too much of the fold, the stitches will show on the right side.





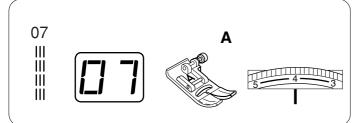
Shell Tuck

This is a pretty hem finish for lingerie and tricot fabrics. You can sew shell stitches in any direction on knits or soft silky wovens.

Tighten thread tension dial to 7-8.

Use a lightweight fabric. For the maximum effect, fold fabric on bias and stitch. Allow the needle to just clear the folded edge of the fabric when it swings off the fabric to the right.

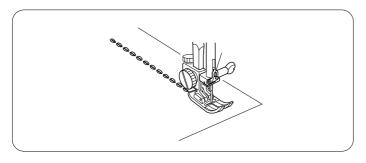
If you sew rows of shell stitches, space the rows at least 1.5 cm (5/8") apart.



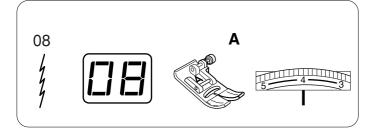
Triple Seam

This strong, durable stitch is recommended where both elasticity and strength are needed. Because of its durability, once in place, this stitch is not easily removed. Use it to reinforce areas such as crotch and armhole seams or to construct items such as backpacks. This stitch can also be used for topstitching.

Elna invented this stitch in 1952.

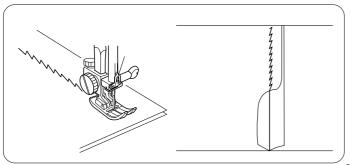


Using a straight stitch (stitch length 4.0), baste a seam together. Verify the fit. Reset the machine for triple seam and sew.

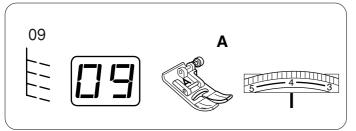


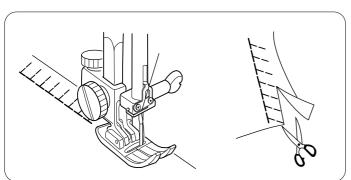
Stretch Seam

A narrow stretch stitch that eliminates puckering on knit fabrics and bias seams. The seam can be pressed flat and opened.



Sew seam and press it open.

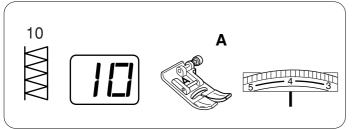




Super Stretch Stitch

This stitch is recommended for sewing fabrics such as swimwear and stretch velour as it provides great stretchability and strength. Seams lie flat and do not lose their shape. Foot pressure may need to be changed to 2 for fabric to maintain its shape.

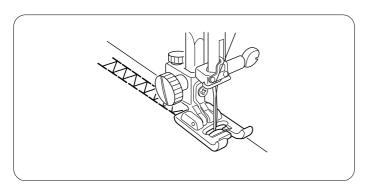
Place the fabric edges together under the presser foot. Trim away any excess seam allowance.



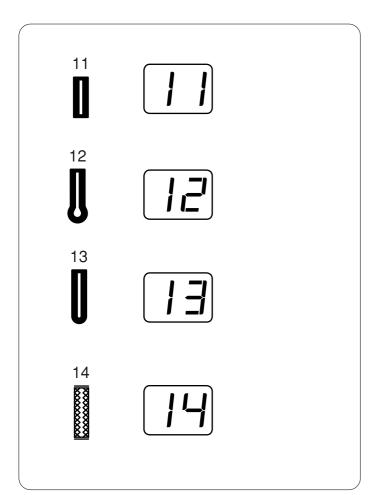
Double Overlock Stitch

This stitch finishes the edges of your seams similar to a commercial overlock machine stitch.

Elna invented this stitch in 1976.



Place the fabric edges together under the presser foot. Trim away any excess seam allowance.



Buttonhole Variations

All buttonholes should use interfacing that is the same weight as the fabric. Interfacing is especially important when sewing on stretch fabrics.

11 Classic Buttonhole

The most common buttonhole, found on blouses, shirts, pants, etc. It consists of a bartack at each end and a compact zigzag stitch along each side.

12 Classic Keyhole Buttonhole

Accommodates the shank found on large buttons used on heavy coats and jackets.

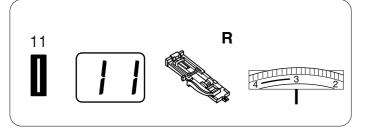
13 Jeans Buttonhole

Traditionally found on ready to wear jeans and other denim garments.

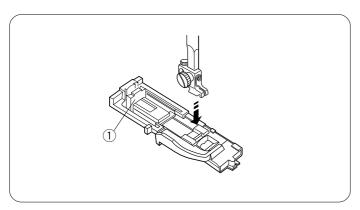
14 Stretch Buttonhole

Designed for non-woven fabrics such as knit and jersey. It provides a decorative touch

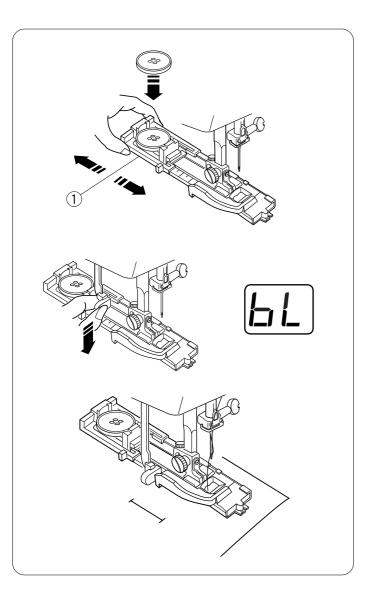
Test sew the buttonhole on a sample swatch of the same fabric. Include the interfacing and any seam allowances that will be in the actual garment. This is very important to ensure the buttonhole style and fabric are compatible.



Select a buttonhole style - 11 through 14. Alter the buttonhole width to match the fabric and thread. See page 39.



Attach buttonhole foot (R) with the buttonholder 1 to the rear.



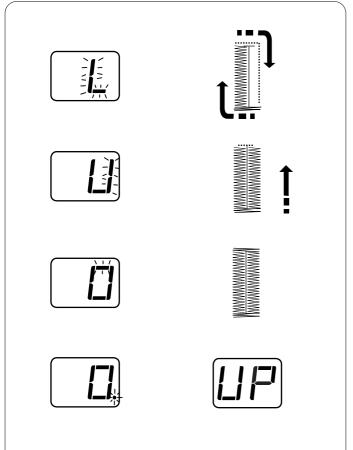
Pull open the buttonholder ① to the back and place the button in it. Push the holder together tightly around the button.

Placing the button in the automatic buttonhole foot (R) automatically sets the size of the buttonhole. The buttonholder adjusts for buttons with a diameter between $0.5~{\rm cm}~(3/16")$ and $2.5~{\rm cm}~(1")$.

Pull the buttonhole lever down as far as it will go.

NOTE: The machine stops sewing and shows warning message "bL" if the buttonhole lever is not lowered when sewing buttonholes. Pull down the buttonhole lever and start sewing.

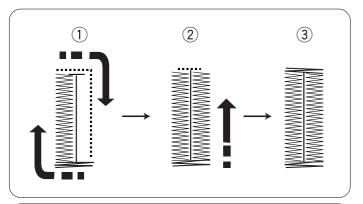
Mark the buttonhole area on the fabric. Place **both threads** to the left **under** the foot. Insert the garment under the foot and hand turn the flywheel to lower the needle at the starting point. Then lower the buttonhole foot.



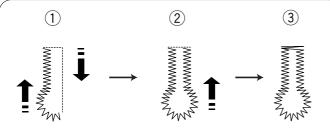
While sewing the buttonhole, the LED readout flashes which portion is currently being sewn.

A flashing "." in the LED readout signals that the buttonhole is finished. Raise the presser foot and the "." disappears.

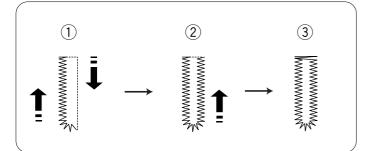
NOTE: If presser foot is not raised and another stitch is selected, the warning message "UP" will appear.



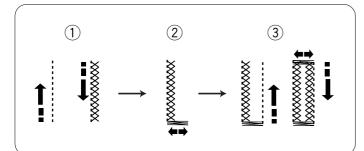
- 11 Classic Buttonhole the machine will automatically sew:
 - 1 the front bartack, zigzag backwards on left side and straight stitch forward on right side to front bartack
 - 2 zigzag backwards on right side
 - 3 back bartack and stop



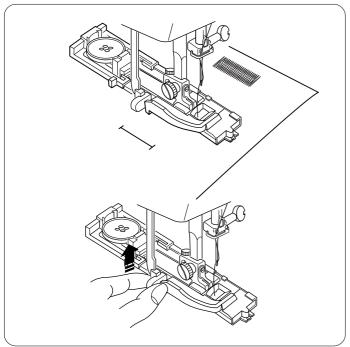
- 12 Classic Keyhole Buttonhole— the machine will automatically sew:
 - 1) the front left half of keyhole, zigzag backwards on left side and straight stitch on right side to front
 - 2 front right half of keyhole and zigzag backwards on right side
 - 3 back bartack and stop



- 13 **Jeans Buttonhole** the machine will automatically sew:
 - the front left half of rounded end, zigzag backwards on left side and straight stitch on right side to front
 - 2 front right half of rounded end and zigzag backward on right side
 - 3 back bartack and stop



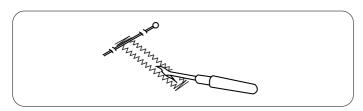
- 14 **Stretch Buttonhole** the machine will automatically sew:
 - ① straight stitch on left side backwards and cross stitch forward on left side
 - (2) front bartack
 - 3 straight stitch on right side backwards, back bartack, cross stitch forward on right side and stop

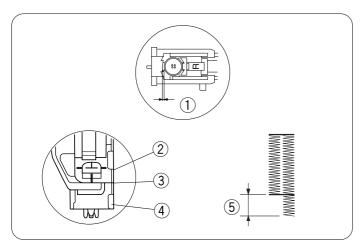


Sewing Additional Buttonholes

To sew another buttonhole - raise foot, move fabric, lower foot and sew.

When buttonhole sewing is finished, push the buttonhole lever upward as far as it will go.







Place a pin just inside the bartack at each end to prevent accidentally cutting bartacks. Cut buttonhole open with the seam ripper.

Troubleshooting Tips

If the button is extremely thick and difficult to fit through the test buttonhole, you can lengthen the buttonhole by pulling the buttonholder on the foot back a little extra. The length of the hole will increase by that same amount.

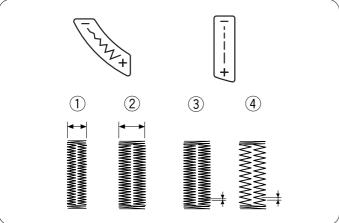
Make sure there is not a gap between the slider and the spring holder. If there is a gap, the sides of the buttonhole will be different lengths 5.

- 1 Buttonholder
- 2 Slider
- 3 There should be no gap
- 4 Spring holder
- 5 Incorrect buttonhole

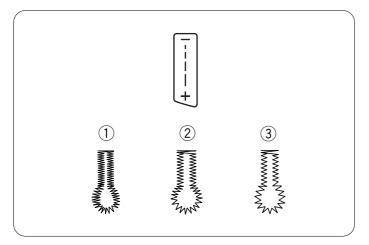


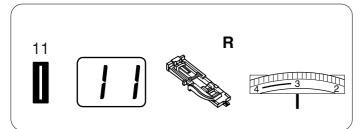
Press the "-" or "+" side of the keys to alter the buttonhole for different weights of fabric and thread.

- 1 Narrower width
- 2 Wider width
- 3 Shorter stitch
- 4 Longer stitch



- Alter Classic Keyhole Buttonhole Stitch Length According to Fabric and Thread
 - 0.3 Lightweight fabric
 (for lawn and batiste)
 - 2 0.4 Mediumweight fabric (for gabardine, linen and wool)
 - 3 0.8 Heavyweight fabric (for coating and polar fleece)



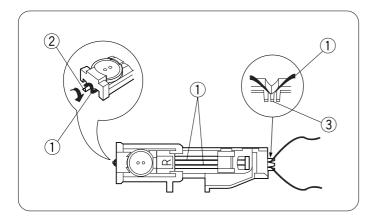


Corded Buttonhole

Corded buttonholes are found on coats and other garments that require extra strong buttonholes. The cording reinforces and accentuates the buttonhole.

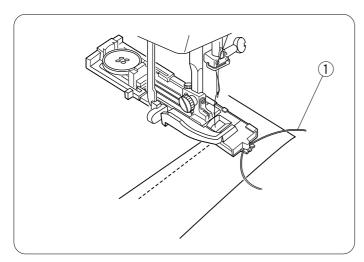
Sew a corded buttonhole using the same procedure as described for a classic buttonhole.

 Set the stitch width to match the thickness of the cording.



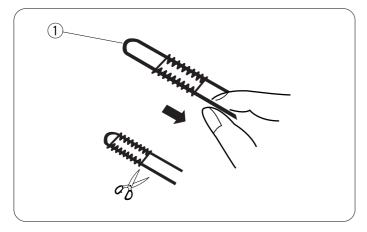
With the buttonhole foot raised, hook the filler cord ① on the spur ② at the back of the buttonhole foot. Bring the ends forward under the buttonhole foot.

Position the cord into the forks $\ensuremath{\mathfrak{3}}$ on the front of the foot to hold the ends tight.



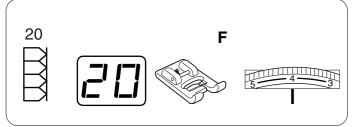
Hand turn the flywheel to lower the needle into the garment where the buttonhole will start and lower the presser foot.

Press the foot control and slowly sew the buttonhole. Each side of the buttonhole and the bartacks will be sewn over the cord ①. Remove the fabric from the machine and cut only the sewing threads.



Pull the left end of the cord ① to tighten it. Thread the end through a darning needle, draw to the wrong side of the fabric and cut.

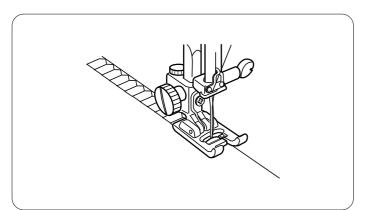
Cut open buttonhole.



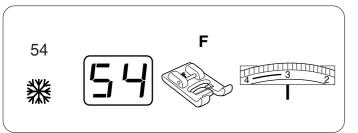
Super Overlock Stitch

This industrial inspired overlock stitch is excellent for assembling and finishing fabrics together in one step. Apply ribbing to knits and garment retains its shape.

Elna invented this stitch in 1982.



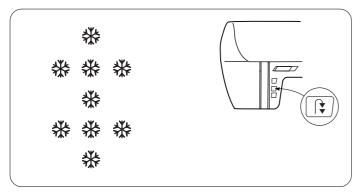
Place the fabric edges together under the presser foot next to the right side edge of the presser foot.



SECTION IV Decorative Sewing

Single Design – Auto-Lock Key

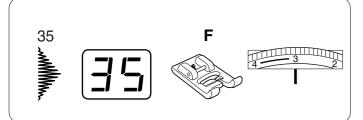
It is possible to sew a single design for a decorative effect.



Place fabric and stabilizer under presser foot and lower presser foot. Begin sewing and immediately press "Auto-Lock" key. Machine will complete the design, lockstitch and stop.

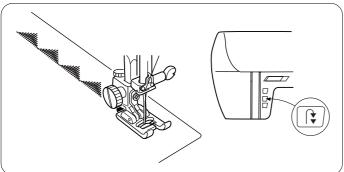
Position fabric for another design and repeat.

Use this method for any decorative stitch.



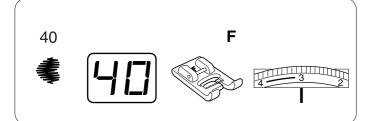
Complete Design – Auto-Lock Key

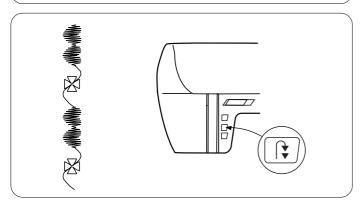
Choose any of the stitches 31 - 60 for decorative sewing.



Remember to use stabilizer appropriate to the fabric.

When you are sewing the last design, press the "Auto-Lock" key. Machine will complete the design, lockstitch and stop.





Combining Designs

Add a decorative accent to your sewing. Express your creative talents by alternating designs.

Remember to use stabilizer appropriate to the fabric.

Sew two hearts; press the "Auto-Lock" key while sewing the second heart.

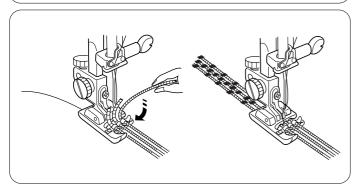
Select and sew flower; press the "Auto-Lock" key while sewing flower.

Repeat as many times as needed.



Corded Trim

Sew over three strands of cording to create unique borders and trims. Pearl cotton, knitting yarn, embroidery floss, lace thread, fine wool or lily yarn may be used as cording.



Slide the sewing threads to the left and insert three strands of cording into the slots of H cording foot with 5 cm (2") extending behind the foot. Knot together the strand ends. (The slots on H foot will hold the lengths of cording while stitches form over them.)

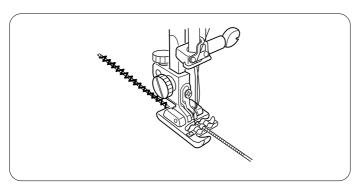
Mark design on the right side of the fabric with a washable marker.

Stitch slowly and smoothly, turning the fabric as you sew while guiding the cording over the design lines.



Single Cord For Gathering Heavy Fabric

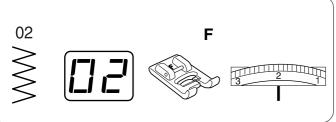
Decrease stitch width to 3.0.

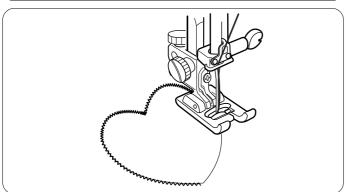


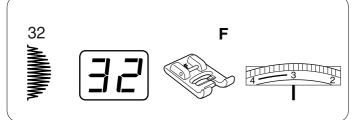
Insert a single cord in center groove of H foot. Sew over cord.

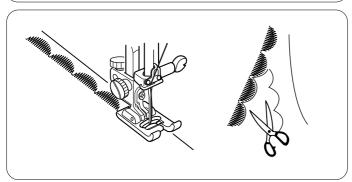
Pull cord for desired amount of gathering. Secure ends and distribute gathers evenly.

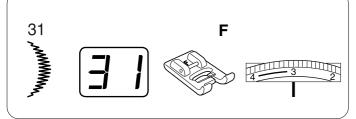
Lay gathered fabric over flat fabric and sew the two fabrics together using straight stitch with stitch length at 3.0 or higher.

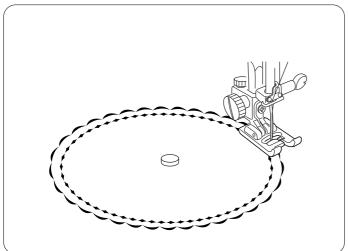












Satin Stitch Appliqué

The zigzag stitch is commonly used for appliqué, monogramming, stems of flowers and petals. (A short zigzag stitch length creates the satin stitch.) Threads of 100% cotton, rayon or silk provide the best results.

 Apply stabilizer to the fabric for the stitch to form correctly.

Decrease stitch width to 3.5 and stitch length to 0.4.

- 1. Press fusible webbing to the wrong side of a lightweight fabric.
- 2. Cut out design shape. Fuse design to main fabric.
- 3. Sew design to fabric with the needle swinging off the appliqué.
- 4. When you reach a place where you need to turn, lower the needle into the fabric at the outer edge of the turn. Raise the presser foot, turn fabric, lower the presser foot and continue sewing. You may need to set the foot pressure dial to 2.

Scallop Edges

Attractively finish edges of collars, pockets and placemats.

Select either 31 or 32.

To edge a collar, place interfacing/stabilizer between upper and under collar and sew scallop on seam line. After sewing, trim fabric close to stitching taking care not to cut scallops.

Circle Sewing

The circular sewing pivot pin is inserted into free arm and provides a pivot point to sew perfect curves or circles for doilies or large scallops. Use either utility or decorative stitches.

Select a decorative stitch.

Fold fabric into quarters to determine center. Pierce center of fabric with pivot pin. Insert pivot pin into hole on the extension table. Lower presser foot and sew. Smooth the fabric out evenly from the center to the front of the foot by hand.

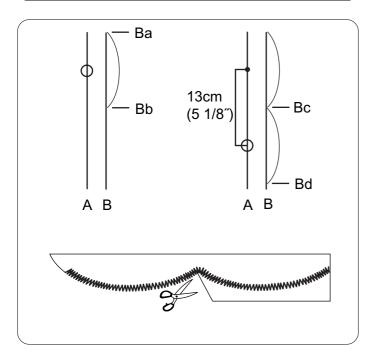
NOTE: Light to medium weight fabrics will need a stabilizer to sew the circle/curve correctly.



Large Scallop Border

Create scallops for beautiful fabric edges.

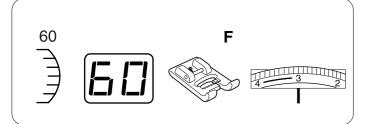
Change stitch width to 2.5 or wider and stitch length to 0.3 or higher.



Draw two lines 2.5 cm (1") apart on the fabric with a washable fabric marker. Insert pivot pin through line (A) and place pivot pin in center pivot hole on table. Begin sewing at line (Ba) and stop at line (Bb).

To form second scallop, insert pivot pin through line (A), 13 cm (5 1/8") away from first pivot point. Pivot fabric and check that scallops will intersect. Begin sewing at line (Bc) and stop at line (Bd).

Sew remaining scallops using same method. Trim fabric away to create large scallop border.



Twin Needle Decorative Designs

Sew decorative stitches with a twin needle. Why not try two different thread colors in the needles?

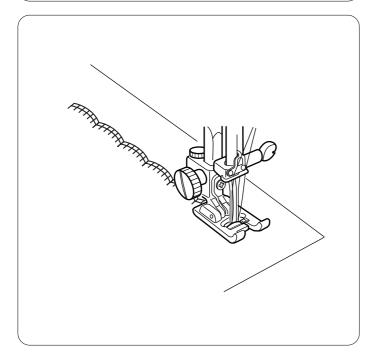
Turn OFF the power switch and insert twin needle. Thread machine. See page 29. Turn ON the power switch and select a design.

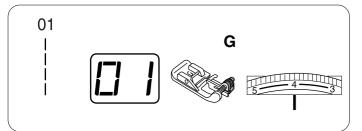
Decrease stitch width to 3.0 or less.

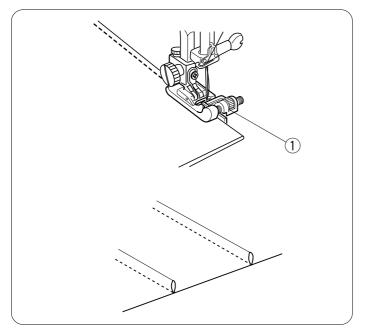
CAUTION: Twin needles are available in many different sizes and widths. Before sewing, always turn the flywheel to make sure the needles do not hit the foot.

Sew twin needle design.

Recommended stitches for twin needle: 02, 03, 07, 08, 10, 15, 16, 17, 19, 24, 25, 41, 48 and 60.







SECTION V Heirloom

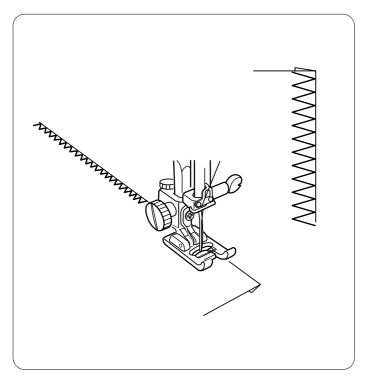
Pintucks

A beautiful accent to any project. Pintucks should be added to your fabric before cutting out the pattern piece.

Use a washable marker to draw parallel lines for pintucks on fabric right side. Fold fabric on first line with wrong sides together. Place folded edge against guide on foot. Decide how wide you want the pintucks and move the thumb nut ① to move the guide. Sew pintuck. Sew remaining pintucks using same method.

Remove marking lines. Press pintucks to one side.



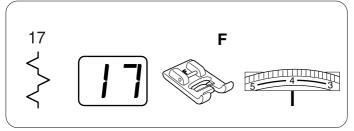


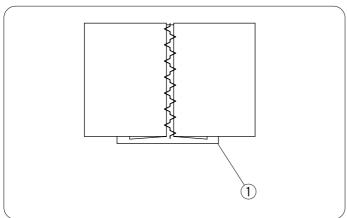
Whip and Roll Hem

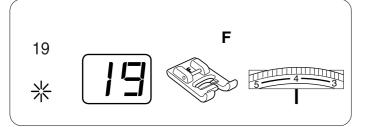
This technique produces a beautiful edge on ruffles and hems. It should only be used for lightweight fabrics and is commonly used in heirloom sewing.

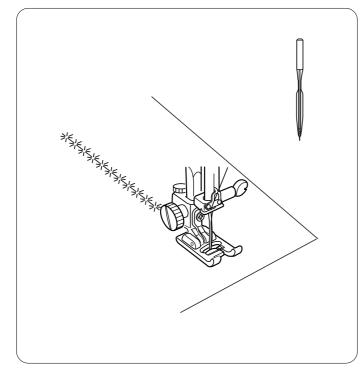
Decrease stitch width to 3.5 and stitch length to 0.8.

The fabric edge must be clean cut with no unraveling threads. Lay the fabric edge in the center of the foot. The zigzag will catch the edge on the left and clear the raw edge on the right, rolling the fabric.









Bridging (Fagoting)

Two folded edges are joined together by threads over an open area. Use linen, cotton or blend of linen/cotton.

Thread machine, needle and bobbin with fine embroidery thread (50 weight or finer). Use spray starch to stabilize fabric.

Fold and press under seam allowance to wrong side of fabric. Baste folded edges of fabric on top of thin paper or water-soluble stabilizer ①. Center stitching over the paper/fabric. Lower the presser foot. Sew, catching the folded edges of fabric.

Remove paper or wash away stabilizer and basting stitches.

NOTE: An Elna *EXCLUSIVE* optional accessory is the fagoting plate. It is a guide for the two folded fabric edges and eliminates the need for paper stabilizer and basting fabric to paper.

Hemstitches

Hemstitching, also known as French hand sewing, was traditionally only a hand sewn art. Best results require the use of linen, cotton or a blend of linen/cotton.

Thread machine, needle and bobbin with a fine cotton embroidery thread (50 weight or finer). Insert a universal needle size #100, #110 or a wing needle (see cautions below). Use spray starch and press to stabilize fabric.

CAUTION: A wing needle is wider than a regular needle. Hand turn the flywheel a few times to ensure needle does not touch needle plate. If needle touches needle plate, narrow the stitch width.

CAUTION: Built-in needle threader does not function if a wing needle is inserted.

Select either 18 (Point de Paris or Pinstitch) or 19 (Daisy).

Draw design lines with a washable fabric marker. Sew slowly over design lines.

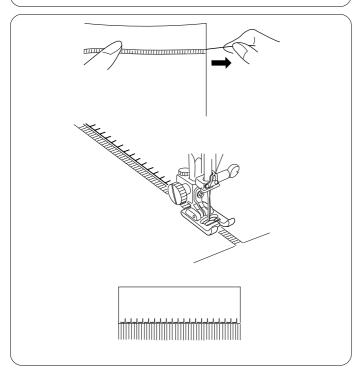
Troubleshooting Tip: Adjust fine adjustment screw until needle precisely penetrates each repeat hole. See page 7.

Remove wing needle after sewing is complete.



Fringing

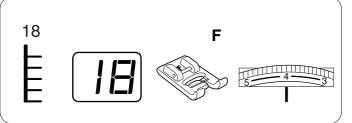
Fringing adds a special touch on table linens and shawls. Choose a firm, woven fabric like linen where threads can be removed easily.



Carefully cut the fabric on grain. Remove a single yarn or thread where the fringing is to begin.

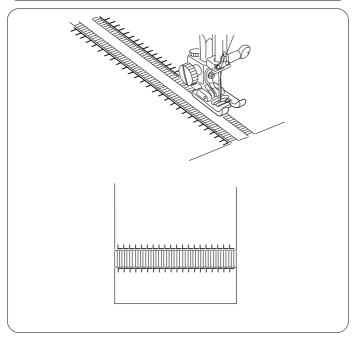
Sew down the right side so the left hand stitches fall in the open space.

Remove all excess yarn located to the left of stitching and create fringe.



Drawn Work

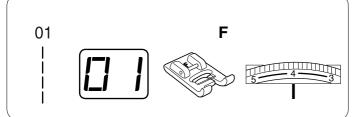
Drawn work uses the same method as fringing. Choose a firm, woven fabric like linen where threads can be removed easily.



Carefully cut fabric on grain. Determine width of the drawn work and remove one yarn or fabric thread at each end.

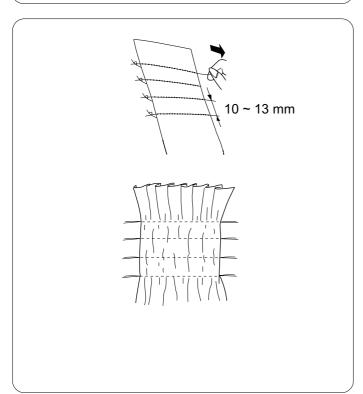
Sew down right side, guiding fabric so left hand stitches fall in open space. After finishing left side, turn the fabric around 180°. Sew down other side.

Remove the yarn or fabric threads between the stitching.



Smocking

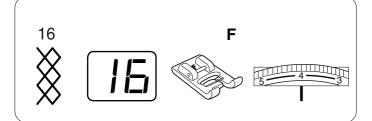
Smocking is a delicate, decorative treatment on children's clothing or women's blouses. Choose a soft, lightweight fabric such as batiste, gingham or challis. Cut the fabric three times the finished width.



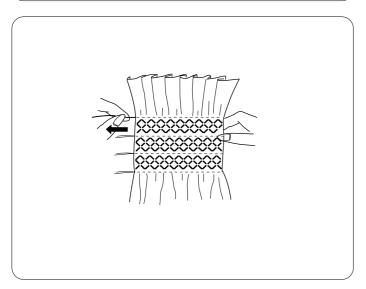
Select 01. Increase stitch length to 5.0.

Sew rows of straight stitches about 10-13 mm (3/8"-1/2") apart, across the area to be smocked. (A looser needle thread tension will make gathering easier.)

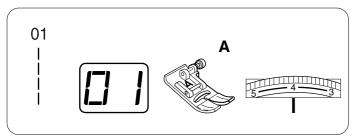
Tie the threads along one edge. Pull the bobbin threads to distribute the gathers evenly. Secure the threads at the other end.

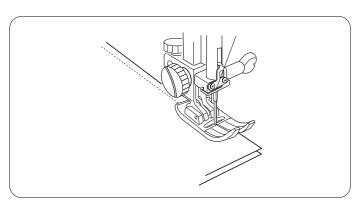


Select 16.



Sew smocking stitch between the straight stitches. (Pressure may need to be reduced.) Pull out the straight stitching lines.







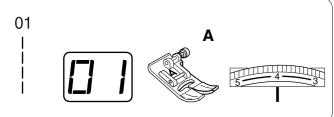
Piecing Fabrics Together

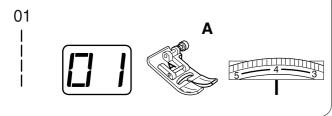
Accuracy is the key when sewing together fabric pieces for a quilt. Be sure to precisely cut your fabric pieces with 6.5 cm (1/4") seam allowances.

Press "Stitch Width/Needle Position" key and move needle position to 5.5.

A 1/4" seam can be sewn by using needle position 5.5 and the edge of the "A" presser foot. Align fabric edges (right sides together) under foot edge and sew 1/4" seam.

NOTE: Elna offers a 1/4" foot and a scant 1/4" foot as optional accessories. These feet have a guide for the fabric edge to lie against; sewing results are very accurate.





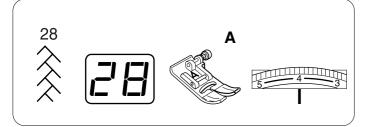
Quilt Guide

The quilt guide is helpful when sewing parallel, evenly spaced rows of stitching.

Loosen the quilt guide holding screw ①, slide the quilt guide in the opening 2 until the desired width is set and tighten the screw.

Sew; the quilt guide will lie over the previous row of stitching.

NOTE: The quilt guide can also be used with the optional walking foot or open toe walking foot.



Patchwork

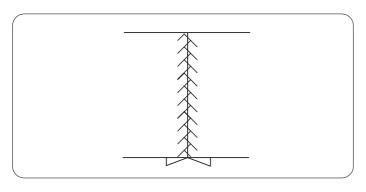
A fun method of decorating your quilt (often called "Crazy Quilting") is to sew a patchwork stitch over the opened seam.

Select 01.

Sew a straight stitch seam and press seam allowance open.

Select a patchwork stitch: 24-30.

Sew with stitching centered over the seam.



23

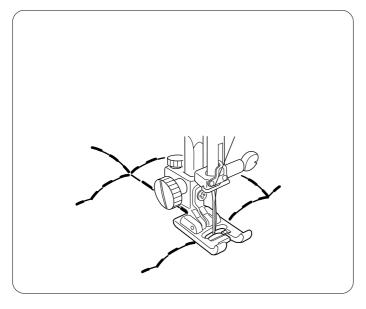
Ш

Quilt Stitch

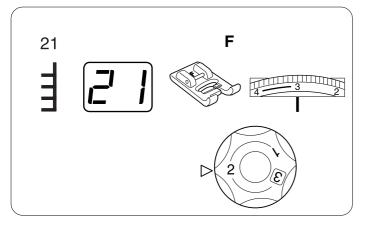
The quilt stitch adds a three dimensional effect when outlining designs.

Place monofilament (clear invisible) thread in the needle and 60 weight cotton thread on the bobbin (color matches quilt back).

You might need to increase needle tension to 6.



Use a washable fabric marker to draw design lines on quilt top. Place batting (wadding) between quilt top and backing fabric. Sew over design lines.

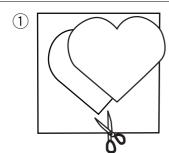


Buttonhole Appliqué

A favorite method of applying small pieces of fabric to quilts for decoration.

NOTE: Stitch 22 is the mirror image of stitch 21. Use the one that works best for you and your design.

Use fine embroidery thread (50 weight or finer) and needle appropriate to fabric. You may need to set the foot pressure dial to 2.

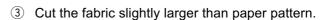


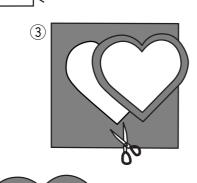
1) In this type of appliqué, raw edges are folded under.

To prepare raw edge, first cut appliqué design out of paper.



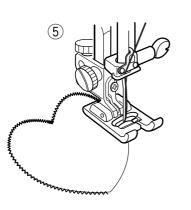
2 Press fusible webbing to wrong side of appliqué fabric.



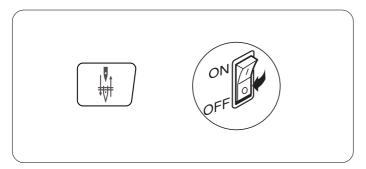


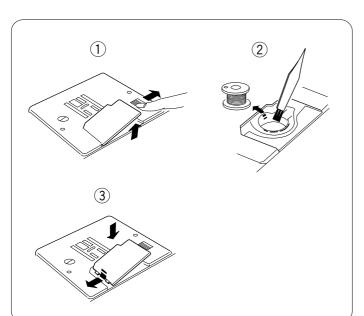
4 Fold fabric under to match paper pattern size. Remove pattern. Press only the edge to form a perfectly shaped design.

NOTE: Clip curves where necessary.



⑤ Press appliqué in place and sew. Straight edge of the stitch is sewn next to folded edge of appliqué.





SECTION VII

Taking Care of Your Machine

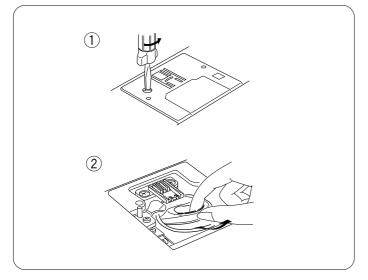
Your machine has been meticulously designed and manufactured to give you a lifetime of sewing pleasure. Do not store the machine in a high humidity area, near a heat radiator or in direct sunlight. The machine is self-lubricating, however, the area around the bobbin and hook must be cleaned each time the machine has had extensive use. Do not dismantle the machine further than explained on these pages. Clean the outside of the machine with a soft cloth and pure soap.

Cleaning the Bobbin Area

Loose threads and dust may cause puckered stitches and thread breakage during stitching. Check for lint buildup after each project is completed.

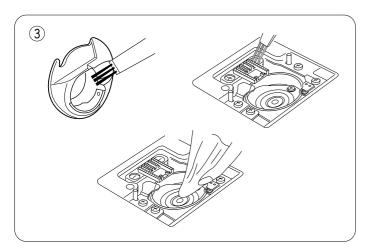
Press the "Up/Down Needle" key until the needle is raised. Turn off power switch. Unplug the machine before cleaning.

- ① Slide the bobbin cover plate release button to the right to remove the bobbin cover plate.
- ② Take out the bobbin; brush out dust and lint. (You can also use a small vacuum cleaner.)
- 3 Insert the bobbin and attach the bobbin cover plate.

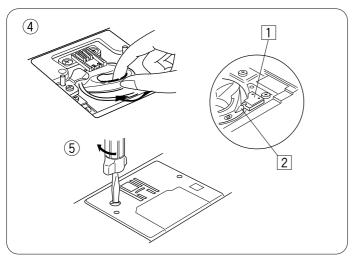


Cleaning the Hook Area and Feed Dog

- 1 Remove the presser foot, bobbin cover plate, needle and bobbin. Use the screwdriver supplied with the machine to remove the screw on the left side of needle plate.
- ② Remove the needle plate. Lift up and remove the bobbin case.



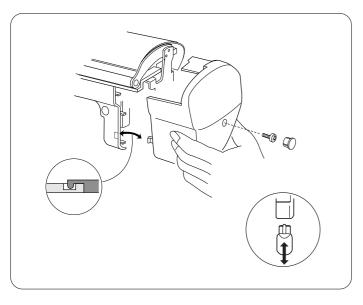
③ Clean the feed dog and hook area with the lint brush. Wipe out gently with soft, dry cloth. (You can also use a small vacuum cleaner.)



Replacing the Bobbin Case

- 4 Insert the bobbin case so the knob fits next to the stopper in the hook area.
 - 1 Stopper
 - 2 Knob
- (5) Replace the needle plate, inserting the two needle plate guide pins into the holes in the needle plate. Replace the screw.

After cleaning, be sure to replace the needle, presser foot and bobbin.



Changing the Light Bulb

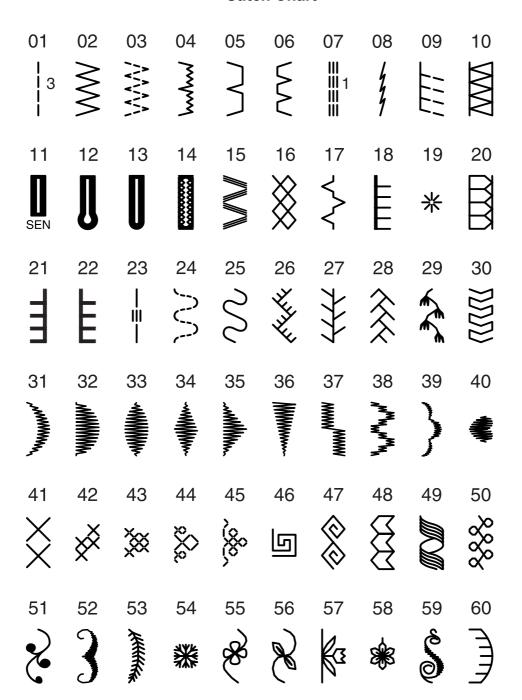
The sewing light is located behind the face plate. Unplug the machine. Remove screw cap and screw. Pull away face plate.

Pull out light socket. Pull out light bulb. Push in light bulb with pins aligned to holes in light socket. Push in light socket.

Replace face plate, screw and screw cap.

NOTE: Only use same type light bulb rated 12 Volts, 5 watts.

Stitch Chart



Optional Accessories

Elna is pleased to offer the following optional accessories for your machine. This listing is current at time of printing, but we are always developing new accessories to make sewing easier. Contact your authorized Elna dealer or service center to learn more about the latest innovations OR visit us at our website: www.elna.com.

Part Number	Accessory Name	Part Number	Accessory Name
495100-20	Open Toe Satin Stitch Foot	395719-26	Walking Foot
495470-20	Appliqué Foot	395719-90	Walking Foot w/Quilt Guide
495480-20	Piping Foot	395719-22	Quarter Inch Foot
495851-20	Fringe/Looping Foot	395741-96	Scant Quarter Inch Foot
495320-20	Pintuck Foot, Narrow	395719-28	Ruffler
395719-16	Cord Guide, Narrow	395719-12	Gathering Foot
495400-20	Pintuck Foot, Wide	395719-11	Bias Binder Foot
395719-17	Cord Guide, Wide	395719-33	Hemmer Foot, 2 mm
495265-20	Pearl/Bead Foot 2 mm	395719-20	Straight Stitch Foot
495260-20	Pearl/Bead Foot 4 mm	395719-19	Roller Foot
495560-20	Fagoting Plate, Narrow	395719-21	Teflon® Foot
495330-20	Fagoting Plate, Wide	495010-20	Zipper Foot, Invisible
495390-20	Elastic Gatherer w/Plate, 8.0 mm	395719-78	Button Sewing Foot
495845-20	Elastic Gatherer w/Plate, 10 mm	424630-10	Rug Making Fork
495525-20	Elastic Gatherer w/Plate, 13 mm	395721-56	Circular Sewing Device
495860-20	Ribbon/Sequin Foot	395719-51	Seam Guide
495050-20	Embroidery/Darning Foot	395731-94	Straight Stitch Needle Plate

TROUBLESHOOTING

Condition	Cause	See page(s)
Needle thread breaks	The needle is not threaded properly.	20
	2. The needle thread tension is too tight.	10
	3. The needle is bent or blunt.	12
	4. The needle is not inserted correctly.	12
	The needle thread and bobbin thread are not properly under (drawn to the b	
	of) the presser foot when starting to sew.	23
	The fabric is not moved to the back when sewing is finished.	24
	7. The thread is either too heavy or too fine for the needle.	12
	The thread is tangled around spool.	20
Bobbin thread breaks	 The bobbin thread is not threaded correctly in the bobbin case. 	19
	Lint has collected in the bobbin case.	52-53
	The bobbin is damaged and does not turn smoothly.	Change bobbin
Needle breaks	 The needle is not inserted correctly. 	12
	2. The needle is bent or blunt.	12
	The needle clamp screw is loose.	12
	4. The needle thread tension is too tight.	10
	The fabric is not moved to the back when sewing is finished.	24
	The needle is too fine for the fabric being sewn.	12-13
	7. The correct presser foot is not being used.	23
Skipped stitches	The needle is not inserted correctly.	12
	2. The needle is bent or blunt.	12
	3. The needle and/or the thread are not suitable for the fabric being sewn.	12-13
	4. A stretch needle is not being used for sewing stretch, very fine and	
	synthetic fabrics.	12-13
	5. The needle thread is not threaded properly.	20
	6. The foot pressure dial is not adjusted correctly.	8
	7. The wrong needle is being used.	12-13
Seam puckering	The needle thread tension is too tight.	10
	2. The machine is not threaded correctly.	19-20
	3. The needle is too large for the fabric being sewn.	12
	4. The stitch length is too long for the fabric.	16
	The foot pressure dial is not adjusted correctly.	8
	Place lightweight stabilizer under lightweight fabrics.	
Slipping fabric	The foot pressure dial is not adjusted correctly.	8
	The correct presser foot is not being used.	23
Fabric does not feed	The feed dog is packed with lint.	52-53
smoothly	2. The foot pressure dial is not adjusted correctly.	8
	3. The stitches are too short.	16
	4. The feed dog was not raised after being lowered.	7
<u> </u>	5. The correct presser foot is not being used.	23
Gathering	1. The needle thread tension is too tight.	10
	2. The needle is either too large or too small for the thread.	12
March's and a second second	3. The stitches are too long for fabric weight.	16
Machine does not work	The machine is not plugged in.	11
	2. A thread is caught in the hook area.	52-53
Official and the formation	3. The bobbin winder spindle is still in the winding position.	18
Stitches are distorted	The fine adjustment screw is not adjusted properly.	7
	2. The correct presser foot is not being used.	23
	3. The needle thread tension is too tight.	10
	4. The stitch length is not suitable for the fabric being sewn.	16
Buttonholes do not	5. Use interfacing for fine or stretch fabrics.	Use stabilizer.
	The stitch length is not suitable for the fabric being sewn. Interfering in not being used with fabrics. Interfering in not being used with fabrics.	39
work	Interfacing is not being used with fabrics.	36
	There is a gap between the slider and spring holder. Putterhale level is not relied decrease.	39
Naiov aparation	4. Buttonhole lever is not pulled down.	37
Noisy operation	Threads have been caught in the hook area. I have been the hook area.	52-53
Fabric layers shift	 Lint has built up in the bobbin case or hook area. The foot pressure dial is not adjusted correctly. 	52-53
Fabric layers Smit	, , , , , , , , , , , , , , , , , , , ,	8
Machina stans and I -	The correct presser foot is not being used. Threads have been cought in the back area. Threads have been cought in the back area.	23
Machine stops and Lo	Threads have been caught in the hook area. Hint has britten in the habiting area on head, area.	52-53
appears	2. Lint has built up in the bobbin case or hook area.	52-53
	3. The machine is not threaded correctly.	19-20
Machine oters and F4	4. The fabric is too heavy.	12
Machine stops and E1	Machine needs servicing.	Contact your
appears		authorized Elna
		service center.

You may hear a faint humming sound coming from your machine's internal motors. This is normal and no cause for concern.

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